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Vol. XCVII.



## THE BEST HOUSE FOR ALL PHARMACEUTICAL PRODUCTS

*Proprietors of the "Silver Churn" Dairy Preparations.*

**OLDFIELD, PATTINSON & Co.**  
TELEGRAMS: "OPIUM."  
PHONES: City 984 & 4038. MANCHESTER.

## The Prevention of Price Cutting

It pays to sell the right goods at protected prices.

The Popular  
**"TORCH" BRAND**  
Cod Liver Oil with Malt Extract

is unsurpassed in quality and packing. It gives satisfaction all round.

*A Fair profit to the Retailer.*

*A Fair price to the Public.*

### P.A.T.A. PRICES :

	WHOLESALE	RETAIL
½-lb. 1 lb. 2 lb. 4 lb. 7 lb.	8/- 12/3 22/- 41/6 70/-	1/1 1/7 2/11 5/6 9/6

Manufactured by

Allen & Hanburys Ltd., Bethnal Green, London, E.2

*Ensure your customers*

## A HAPPY XMAS

*and*

## A COMFORTABLE NEW YEAR

*by persuading them to buy and also to give*

### MAY, ROBERTS' "L" BRAND HOT WATER BOTTLES



*"Guaranteed for Two Years."*

SIZE	6 x 8	6 x 10	6 x 12	8 x 10	8 x 12	8 x 14
Each Nett.	<b>2/6</b>	<b>2/10</b>	<b>3/2</b>	<b>3/3</b>	<b>3/9</b>	<b>4/2</b>

SIZE	10 x 12	10 x 14	10 x 16	12 x 14	12 x 16
Each Nett.	<b>4/2</b>	<b>4/9</b>	<b>5/3</b>	<b>5/3</b>	<b>5/9</b>

*For orders of 3 dozen assorted we  
allow a Special Discount of 5%*

---

**MAY, ROBERTS & CO., LTD.**  
**7/13 CLERKENWELL ROAD, E.C. 1**

*And at Dublin, Liverpool and Plymouth.*

# Important Announcement.

THROUGHOUT THE MONTH OF DECEMBER

Pharmacists will be able to  
sell their existing supplies of

# WRIGHT'S COAL TAR SOAP

at the present P.A.T.A. Prices.

In anticipation of reduced prices to the public on

**JANUARY 1st, 1923,**

the reduced wholesale prices will be in operation from **December 1st, 1922**, but with the distinct understanding that the purchaser will not sell to the public below the present prices for Toilet Tablets 7d. per tablet, and for Bath Tablets 1/- per tablet, until **January 1st, 1923**.

### NEW WHOLESALE TERMS:

<b>Wright's Coal Tar Soap</b>	<b>Ordinary Wholesale Prices.</b>	<b>Lowest Wholesale Prices for £8 Orders and upwards.</b>
In 3 doz. cartons ... ...	<b>5/-</b> doz. tabs	<b>53/4</b> gross tabs
In Toilet Boxes of 3 tabs. ...	<b>15/-</b> „ boxes	<b>160/-</b> „ boxes
Bath Toilet Boxes of 3 tabs. ...	<b>25/-</b> „ „	<b>22/3</b> doz. boxes

Monthly account less 2½% discount. Free packages. Carriage paid on minimum quantity of 1 gross tablets.

The Retail Price on January 1st, 1923, will be  
**6d. and 10d.** per tablet.

**WRIGHT, LAYMAN & UMNEY, LIMITED**

46, SOUTHWARK STREET, LONDON, S.E.1.

# WHITAKER & CO'S PAGE

ALL HIGH-CLASS CHEMISTS  
should stock our latest Speciality :

## "LUTON" FABRIC DYES

THE IDEAL BOILING DYES FOR ALL MATERIALS

- © In response to many requests from our Chemist friends, we have produced a Range of Fast Boiling Dyes for all Materials. These are produced in a most high-class manner, and it is proposed that they should act as a Companion Series to "Auroral" Cold Water Dyes.
- © "LUTON" FABRIC DYES are in every way worthy to be displayed and recommended in the best Chemists' shops. The Quality of the Dyes is backed by 50 years' Experience of Household Dyes ; they are of great strength, and their "get-up" is something quite exceptional.
- © The very artistic Gold and Black colour scheme will sell the Dyes at sight ; once they have been tried the repeats are bound to follow. Each dozen Dyes is packed in a hinged Display Box, tastefully covered in thick Crocodile paper. A striking Counter Showbox produced in a similar manner, and complete with Patterns, is supplied with a gross order.
- © The 24 Fast Colours are :

Black	Purple	Lavender	Salmon Pink
Myrtle Green	Wine	Emerald	Mauve
Navy Blue	Jade Green	Apricot	Royal Mail Red
Primrose	Pale Blue	Royal Blue	Heliotrope
Brown	Cherry	Dark Brown	Silver Grey
Rose	Saxe Blue	Peacock Blue	Nigger Brown

The Terms are the same as for "Auroral" Dyes, viz. 4/- per dozen, less 5% for prompt cash. They retail @ 6d. per packet. They thus show at least 50% Profit on outlay.

WRITE TO-DAY FOR PATTERN BOOK AND SAMPLE PACKET TO THE MAKERS—

**WHITAKER & CO.,** Dye Specialists, **KENDAL**

Manufacturers of "LUTON" Hat Dyes, "AURORAL" Cold Water Dyes, etc., etc.

# SIX SPECIAL LINES

## H.W. BOTTLES "HOWARD" BRAND, BRITISH MAKE

(Guaranteed for two years)

SIZES	6×8	6×10	8×10	8×12	10×12
APPROX. WEIGHTS	9 oz.	10 oz.	11½ oz.	12½ oz.	15 oz.
Prices (Grey)	2/6	2/9	3/3	3/9	4/3 each

(Single bottles supplied at these prices.) Red Rubber at 33⅓% on above prices.

## H.W. BOTTLE COVERS "Plush" or "Velours"

Price	1/2	1/3	1/6	1/8	2/-	Velours
Each	1/2	1/4	1/7	1/10	2/2	Plush

## DISPENSING BOTTLES (Yorks. make)

1 oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.
11/-	12/-	13/-	13/-	15/-	15/-	20/-	21/-	25/-	28/- grs.

VIALS and HEX. POISONS at low prices.

All these may be assorted in 5-6 gross cases carriage paid up to 100 miles.  
CASES FREE. Lettered plates free for 5 gross lots of one size, provided at least 10 gross repeat orders are given of one size.

## STANDARD HYG. FEEDERS (Leeds make)

Each in fine glazed white carton with Teat, Valve and Brush.

7/- doz. 1 gross lot at 6/6 doz.

## CORN VELVET ("Cornfield" Packet.)

4½d. size, 36/- grs. 10½d. size, 60/- grs. (A very good seller.)

## HOWARD CLOTH CLEANERS

A pure white Magnesia Cube in blue & white cartons. Sells readily at 6d. each.

3/- doz. 2/9 (in 3 doz. lots.) 2/6 (in 1 gross lots.)

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22260 CEN.

**LEEDS (England)**

# SEASONABLE LINES

## BEEF & MALT WINE

(Wine Licence required)

*Prices* : Small Size (12 to Gallon) **26/-** doz.  
Large Size (6 to Gallon) **38/-** doz.

## BEEF & MALT WINE WITH QUININE

(Can be sold by Chemists without Licence)

*Prices* : Small Size (12 to Gallon) **28/-** doz.  
Large Size (6 to Gallon) **42/-** doz.

We import the Wine specially for the manufacture of this Beef and Malt Wine, and offer a sound and well-flavoured product at the cheapest possible price consistent with the excellent quality.

We have a variety of labels, and would be pleased to submit same to you for your selection, together with a sample of the Wine.

---

**C. R. HARKER, STAGG & MORGAN, LTD.**  
DEVON WHARF and BELL WHARF,  
EMMOTT STREET, MILE END, LONDON, E.1.

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## Personal Weighing Machine

BRITISH PATENT No. 23493/1910

*Small and Compact. Weighs from 1 lb. to 20 stone.—  
Suitable for Bathroom, Bedroom, Nursery, etc.  
The weight is reflected automatically in the mirror.*

SIZE 11 × 7½ × 8 inches.

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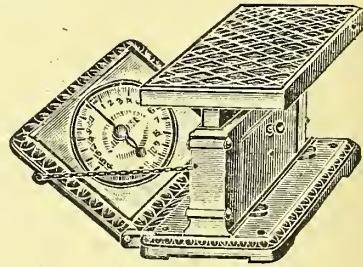
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## IS DIFFERENT

It comprises :—

- (a) AN ADHESIVE SHIELD
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This is how Corn-Flit Medicament is applied.

Should be in every Chemist's Stock because it is being advertised.

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**PROFIT 25%**

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man" Counter Stand.

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## DOLS' FLANNEL

(Volatalise)

*High radio activity through the skin to  
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**Cures RHEUMATISM,  
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LUMBAGO, BRONCHITIS**

Sold in Fancy Boxes at 1/3 and  
3/-, also by the yard at 12/-, and  
made up into every garment sold  
by the Chemist.

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PRICES ON APPLICATION.*

*Very shortly the Company will have a few of their £1  
10% Preference Shares available, these will be offered at  
par in small lots to customers of the company only.*

*Applications should be made at once accompanied by  
cheque to cover number desired addressed to the Secretary,  
Dols Limited, Huddersfield.*

*In case there are more applications than the number  
available, which is small, they will be balloted for.*

REVISED PRICES OF  
**TRUFOOD**  
*The supreme Milk*



From December 1st the prices of  
 "Trufood" have been reduced, and  
 the following rates have become effective:

	PRICE TO THE PUBLIC		PRICE TO THE CHEMIST
10 oz. size	2/- per tin		18/6 per doz.
20     ,,	4/-     ,,		37/-     ,,
36     ,,	7/-     ,,		64/8     ,,



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CINCHONIDINE

CINCHONINE

QUINIDINE

QUINOIDINE

AND SALTS

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SOLE AGENTS FOR THE UNITED KINGDOM

**R.W. Greeff & Co. Ltd.**  
THAMES HOUSE, QUEEN STREET PLACE, LONDON, E.C.4.Tel. No.  
City 6550  
(8 lines)Tel. Add.  
'Greeff.Cannon,  
London.'*Branch Office*

PALATINE BANK BUILDINGS, 10, NORFOLK ST MANCHESTER.

Tel. No. City 5706/7. Tel. Add. Greeff, Manchester.

# IT PAYS TO PUSH "ODDS ON"

Our Generous PERMANENT Bonus Scheme for Retailers.

## P.A.T.A. Prices.

1/3 size (F.M.R.) "ODDS ON" Liniment ..	12/0	dozen.
3/0 .. .. .. .. .. .. ..	28/9	"
8/0 .. .. .. .. .. .. ..	78/0	"

## PERMANENT BONUS

In order to secure and MAINTAIN the Co-operation of Retailers in furthering sales and displaying advertising materials, we offer a PERMANENT BONUS of 13 articles to the dozen; any size, for direct orders value (assorted) £3 and over. Our only stipulation is that a display is made after receipt of each consignment.

**TERMS**—Monthly account, strictly nett. Cash with order  $2\frac{1}{2}\%$  discount. Carriage paid. Display materials free with goods.

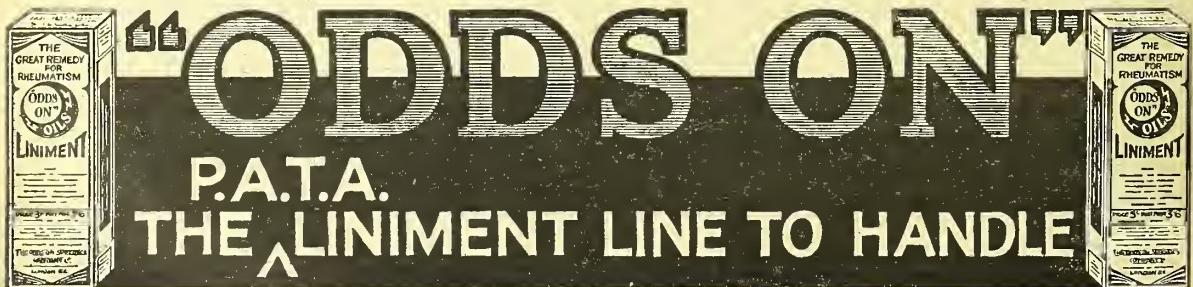
**REGULAR and ASSURED PROFIT of  
28% on TURNOVER, 39% on COST**

**16,000,000**

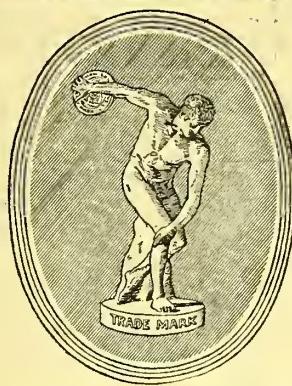
**MONEY-SPENDERS  
are reading "ODDS ON"  
selling-talk every week !**

Send a post card to-night for free parcel of display materials; show them, and you will soon decide to buy direct and secure bonus terms.

**THE "ODDS ON" SPECIFICS CO., Ltd.**  
36/37 COCK LANE, SNOW HILL, LONDON, E.C.1.



# Maw's Page



## MERITOR

### The Tooth-brush that gives Satisfaction

EVERY pharmacist realises the importance of tooth-brush business—that is why the far-seeing pharmacist sells "Meritor" tooth brushes.

He knows that a "Meritor" tooth brush is hand made, by expert workers and of the best materials, and is a guaranteed brush. He knows that the attractive "Meritor" packing and display materials add a note of quality and attractiveness to his pharmacy.

Also he knows that when he makes a "Meritor" sale he is assisting his own profession, because no outside retailers are supplied with "Meritor" Brushware.

"**MERITOR**" TOOTH BRUSHES are made in the following patterns and prices :—

STANDARD PATTERN—4 SIZES. Wholesale price per doz. Minimum Retail Price each

Gentlemen's	\ In two degrees,	16/-	2/-
Ladies'	\ Hard & Medium	14/-	1 9
Child's.	\ In two degrees, Medium & Soft	10/-	1/3
Tom Thumb.	\ Soft only	7 6	1/-

PROPHYLACTIC PATTERN.

Gentlemen's	\ In two degrees,	18/-	2/6
Ladies'	\ Hard & Medium	16/-	2/-
Child's.	\ In two degrees, Medium & Soft	12/-	1/6

"Meritor" means satisfaction to your customer, and satisfying your customer means prosperity.

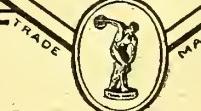


Telephone  
City 7  
Private  
Branch  
Exchange

Telegrams  
Eleven  
Cent  
London

S. Maw, Son & Sons Ltd.  
Aldersgate St., London,  
and Barnet.

Cables:  
Eleven  
London  
Code  
A.B.C.  
4th & 5th  
Edition



# HOVENDENS

## Sweet Lavender Toilet Preparations

**SWEET  
LAVENDER**

A high class superfatted toilet soap manufactured exclusively from the purest materials.



**TOILET  
SOAP.**

Exquisitely Perfumed. Antiseptic, Refreshing and Invigorating. A Tonic for the Complexion.

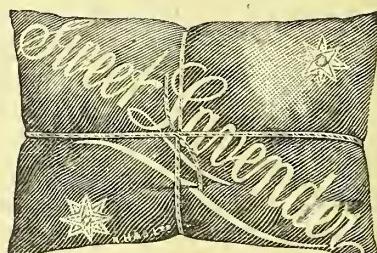
No. 4837. 5/5 per doz.; 63/- per gross.  
3 tab. boxes 15, 9 doz.



**Sweet Lavender  
SMELLING  
SALTS  
FOR  
POCKET OR BAG.**

Highly Perfumed, 7/9 doz.,  
3 doz. lots 7/6 doz.

**LAVENDER BAGS.**



No. 1260A. (Lavender Bags), Gold Blocked  
5/9 doz.

**SWEET LAVENDER WATER.**

(As illustration.)

No. 4847. (About $\frac{1}{2}$ oz.)	8, 9 c <sup>l</sup> oz.	..	..	..	..	3 doz. lots	8/6 doz.
(Send for sample $\frac{1}{2}$ doz.)				In bulk, 1 lb. bottles,	9/6 each.	Bottles extra.	

**R. HOVENDEN & SONS, Ltd., LONDON.**

29, 30, 31, 32 & 33 BERNERS ST., OXFORD ST., W.I.

Tel.: Museum 2810 (3 lines).

And 89, 91, 93 & 95 CITY ROAD, FINSBURY, E.C.1.

Factory: 41 to 53 BRITANNIA ROW, ISLINGTON, N.

Tel.: Clerkenwell 1260 (2 lines).



### MIDGLEY'S NEW "PHARMACIST"

SERIES WILL APPEAL TO THE  
CHEMIST OUT FOR BETTER CLASS TRADE

Ref. 188      18 VARIETIES      3-oz. weight      36/- gross

SHOW BOXES of 12      USUAL, CARR. PAID and DISCT. TERMS

## GEORGE HOLLIDAY & CO. LIMITED

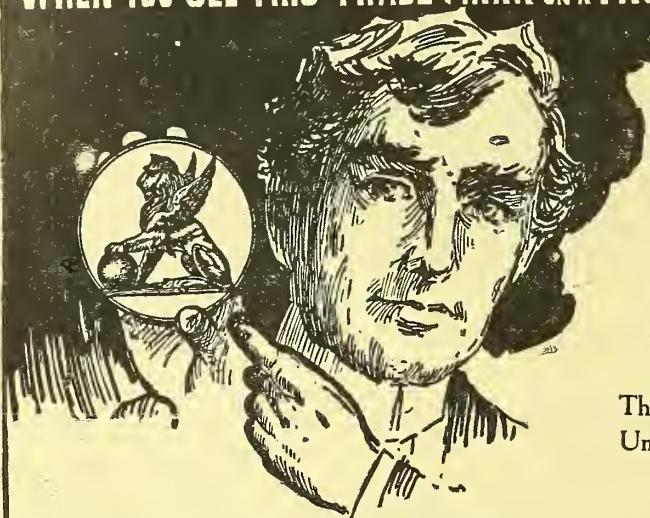
PROPRIETORS OF  
*MIDGLEY'S*  
*FINE SOAPS*  
Toilet and Medicated

Torula Works  
MANCHESTER  
ENG.      Estd. 1833

MAKERS OF  
*OWN NAME*  
*SPECIALTY SOAPS*  
to the Drug Trade

WHOLESALE DISTRIBUTORS: EVANS SONS LESCHER & WEBB LIMITED

WHEN YOU SEE THIS TRADE MARK ON A PACKAGE



you know you are getting  
the ORIGINAL—GENUINE

## WINGED LION BRAND HERBS in PACKETS

These Packets have the largest sale in the United Kingdom, by reason of their Purity and Reliable Contents.

**POTTER & CLARKE, Ltd.,**

*Drug Merchants, Manufacturing Chemists,  
Importers of Herbs, Roots, and Bark,*

**60, 62 & 64 ARTILLERY LANE,  
LONDON, E.**

And 24 LUNA STREET, GT. ANCOATS, MANCHESTER.

Put up in  
 $\frac{1}{4}$ -gross  
cardboard  
cartons,  
15/- per gross  
net.



Headquarters for New Season's  
**CAMOMILES,  
LAVENDER FLOWERS,  
POPPY HEADS  
HONEY.**

**POTTER & CLARKE, LTD.  
60 & 64 Artillery Lane, London, E.**



**POTTER & CLARKE, Ltd., 60-64 Artillery Lane, London, E. 1**  
Also at 24 LUNA STREET, GT. ANCOATS, MANCHESTER.

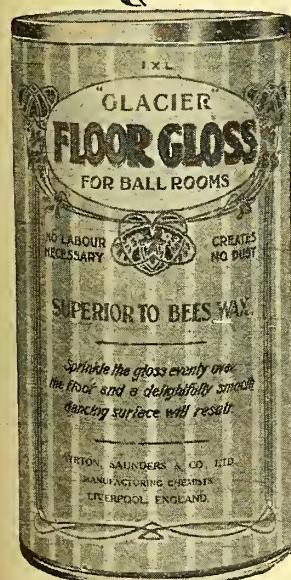


# Gently Swaying business your way by “GLACIER” FLOOR GLOSS

FOR BALL ROOMS.

This couple have found the finest dancing surface yet.

Perfumed, and packed in perforated containers, artistically designed in four colours and gold.



8 oz.	10/-	per doz.	16 oz.
	9/6	if in gross lots	18/-

---

9/6	17/6
-----	------

## For Xmas Parties

nothing equals

IMPROVED

### GINGER-WINE ESSENCE

Makes one gallon of delicious Non-Alcoholic Ginger Wine.

Per doz.                    Per gross.  
6/9                        78/-

Own name on 3 dozen quantities if desired.

Special packing for export. Prices on application.



**AYRTON, SAUNDERS & CO., LTD.**

Manufacturing Chemists,                    LIVERPOOL, Eng.

Telegrams: "SUNDRIES, LIVERPOOL."

**ROURE-BERTRAND FILS,**  
Established 1820. GRASSE (Alpes Maritimes), FRANCE.

LAVENDER OILS distilled at our own works at LARAGNE on the High Alpes.  
PURITY and natural ODOUR of our standard QUALITIES GUARANTEED.

NEROLI OILS, natural, ORRIS CONCRETE GREAT SPECIALTIES.

Also large Distillers of other ESSENTIAL OILS: GERANIUM, PATCHOULI, PEPPERMINT, PENNYROYAL, ROSEMARY, SPIKE, PERSIC OIL, etc., etc.  
ALL PERFUMERY PRODUCTS SUPPLIED.

SOCIETE ANONYME  
**des Etablissements JUSTIN DUPONT,**  
ARGENTEUIL (S & O), FRANCE.

Manufacturers of ARTIFICIAL PERFUMES and SYNTHETIC CHEMICALS.

LINALYLE ACETATE, LINALOOL, etc.  
AMBAR, CHYPRE, CIVET, JASMIN, ROSE MUGUET FLOWERS, etc., etc., and many of the finest original artificial PERFUMES now used for PERFUMING SOAPS, SACHETS, EXTRATS, etc.

SOLE AGENTS for ROURE-BERTRAND FILS AND JUSTIN DUPONT:

**Stephens Brothers & Co.**

LARGE STOCKS HELD IN LONDON. For SAMPLES and PRICES apply to STEPHENS BROS. & CO.

## DODGE & OLCOTT CO.,

20 MARK LANE,  
LONDON, E.C. 3.

### THE "D & O" BRAND

*is the "Standard of Quality" for*

OILS of BAY, CEDARWOOD, PATCHOULI, PEPPERMINT,  
SASSAFRAS, ETC.

BALSAMS of Copaiba, Peru, Tolu.  
TONKA BEANS, Angosturas.

Phone—  
CITY 2468.

Telegrams—  
"EGDARF, FEN, LONDON."

WHY NOT MAKE  
YOUR OWN PER-  
FUMES & TOILET  
PREPARATIONS  
FOR CHRISTMAS?

*It's quite easy with*

# PREEMO

Concentrated Essences & Compounds

EVERY Chemist who desires to adopt the easiest and most profitable way of making up Toilet Waters, Hair Washes, Lotions, Brilliantines, Perfumes, etc., should use the Preemo Products. These essences are expressly made for Perfumes and Toilet Preparation manufacture, and are ready for immediate use. All Distilling, Filtering, Blending, etc., are dispensed with, and they are readily soluble in Water, Spirit and Oil.

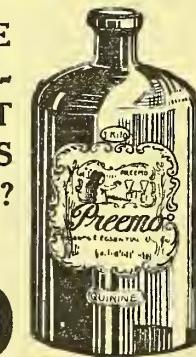
No other essences are so simple to use, so easy to mix, or give such delightful and economical results. You take no risks, therefore, when you use Preemo Essences; the results are certain, and satisfaction is always sure both to you and your customers.

The Preemo Book  
of Simple Recipes

for all kinds of  
Toilet Preparations,

10/- post free.

Contains over 100  
useful and valuable  
recipes.



PREEMO CONCENTRE &  
ESSENTIAL OIL CO.,  
63 High Holborn, London, W.C.1.  
Telephone : Chancery 8095.

## JAKSON'S PEPPERMINT, LAVENDER & CAMOMILE OILS

are the BEST.

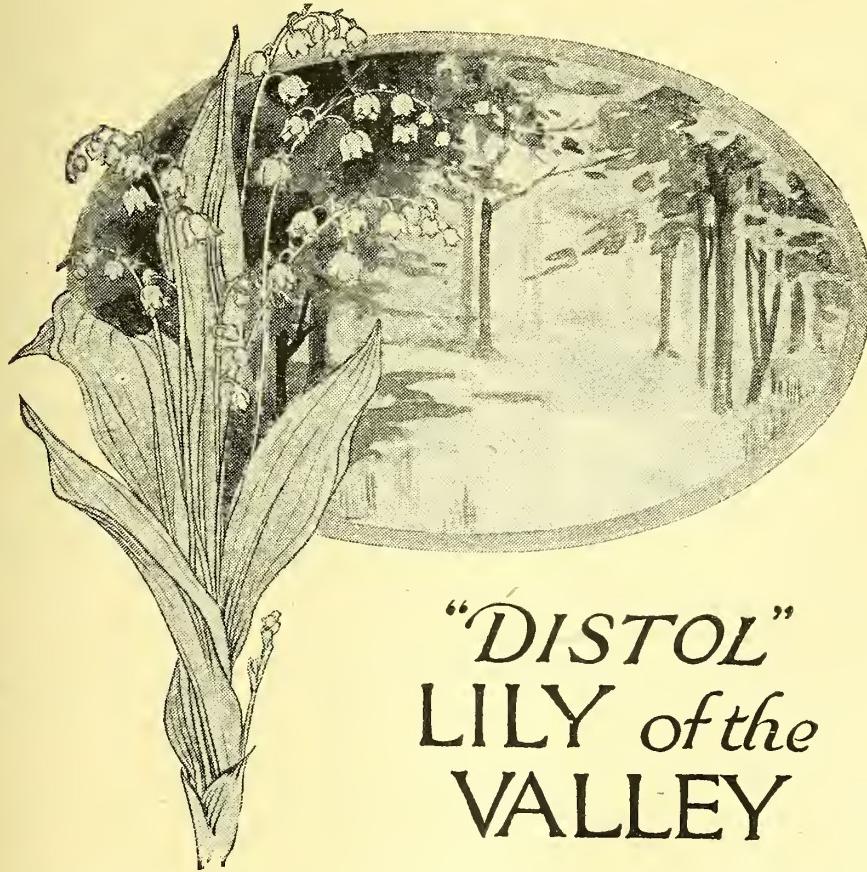
Produced and Prepared by  
THE LARGEST GROWERS & DISTILLERS  
IN ENGLAND.

*Distillery :*

J. JAKSON & CO. (Mitcham Rd., 1921), LTD.  
Mitcham Road, WEST CROYDON.

*AGENTS for the U.K. :*

F. NEWBERRY & SONS, LTD.  
27 & 28 Charterhouse Square, London, E.C.1



## *"DISTOL" LILY of the VALLEY*

THE story of "Distol" Lily of the Valley is the story of any one of the forty "Distol" Ottos. The odours differ, but the quality and convenience are the same always.

Whether your demand is for an elusive perfume such as Lily of the Valley or a pungent oriental scent such as Nubian Poppy, "Distol" Ottos will supply your needs at a minimum of cost and labour, and without locking up capital in big stocks of S.V.R.

An ounce of any "Distol" is made in a few moments into 8*i* oz. of choice perfume by the mere addition of S.V.R. and Aqua Dest. without the need of tinting, filtering, blending, distillation or any other time-absorbing process.

Send for samples of perfumes made under ordinary commercial conditions from any six "Distol" Ottos.

THOMAS KERFOOT & CO LTD,  
BARDSTLE VALE, LANCASHIRE,  
& Bardsley House, London, N.1  
ESTABLISHED 1797.

COPYRIGHT

# Cherry Cough Glycerine Jujubes

FROM A CHEMIST IN YORKSHIRE.

Oct. 12th. 1922.

"Dear Sirs,

Please despatch immediately,  
urgent.—

2 gross 2 oz. 7½d. Cherry Cough Jujubes.

I made a show in my side window  
on Monday and have already, (Thursday)  
sold out the gross sent. I must say it is  
the most profitable and quickest seller  
I have handled.

Yours faithfully,"  
X.Y.Z.

In order to have your share in this  
wonderful "Seller" write at once for particulars,  
and so ensure a place on our Waiting List.

H. & T. KIRBY & Co., Ltd.,  
WILLESDEN GREEN, LONDON. N.W. 2.



Reproduction of Window Display.

## SPECIAL WINDOW DISPLAY OFFER!

THIS Special Offer includes, of course,  
the Iodex range of Products, and all  
our other lines, including the range of  
Tablets enumerated at the side.

IODEX is now used and prescribed daily  
by 90 per cent. of the medical profession  
in Great Britain, to whom it is regularly  
and powerfully advertised. Get in your  
Stocks for the Winter NOW!

MENLEY & JAMES, LTD., 64 HATTON GARDEN, LONDON, E.C.1

If you have not yet  
received particulars  
through the post,  
please write us to-day

### TABLETS of DISTINCTION

CASCARA SAGRADA	Gr. 2. s/c
AMMONIATED QUININE	Dr. 1. s/c
ASPIRIN.	Gr. 5 (with or without Carton)
"	In Sanitape
PHENACETIN.	Gr. 5
PHENACETIN COMPOUND	Gr. 5
IODISED THROAT TABLETS	

# Lorimer-Marshall, Ltd., for PACKED GOODS

Cod Liver Oil Emulsion  
Children's Cough Mixture  
Children's Tonic  
Balsam of Honey  
Honey & Lemon Linctus  
Lung Tonic    Tonic Elixir  
Meat & Malt Wine

*AT KEENLY COMPETITIVE PRICES.*

**LORIMER-MARSHALL, LTD., 12 Tower Hill, London, E.C. 3**

Works Telephone : New X 2119.

Telegrams : " Lorimarsco, Bilgate, London."



# **FAIRY DYES**

Mean Greater Turnover for You—and Absolute Satisfaction for Your Customers.

THERE is no more attractive line on the market to-day—there is no better seller—and no article has made larger strides in popular favour.

# **FAIRY DYES**

are now sold in glass tubes, encased in smart, clean-looking "safety-first" cartons. They are retailed at 2d. each, made in 25 popular shades and colours, and are extensively advertised in the right publications.

You can *rely* upon Fairy Dyes—for prompt delivery in any quantities—for fresh stocks—for quick, easy-to-handle, clean turnover, and as tried favourites your customers are always satisfied. See that you are supplied without delay.

*For Trade Terms and particulars write to*

**FAIRY DYES, LTD.,** 37-41 GLASSFORD ST.,  
GLASGOW.

**London Depot**

# DEARBORN LTD.

37 Gray's Inn Road,  
LONDON, W.C.1.

## Toilet Specialties.

	Price per doz.	Selling Price to Retailer P.A.T.A.
PILENTA SOAP ...	10/-	1/-
A complexion soap.		
PROLACTUM ...	10/-	1/-
For the lips.		
PARSIDIUM JELLY ...	10/-	1/-
For wrinkles.		
ALLACITE OF ORANGE BLOSSOM ...	22/6	2/6
A dressing cream.		
BORANIUM ...	22/6	2/6
A hair tonic.		
CLEMINITE ...	22/6	2/6
For a face lotion.		
COLLIANDUM ...	22/6	2/6
For a face tint.		
PERGOL ...	22/6	2/6
A deodorant.		
TEKKO PASTE ...	22/6	2/6
Camphor cream.		
STALLAX ...	22/6	2/6
For a shampoo.		
JETTALINE ...	31/6	3/6
For clearing the skin.		
PHEMINOL ...	36/-	4/-
A depilatory.		
MENNALINE ...	36/-	4/-
For the eyelashes.		
MERCOLIZED WAX ...	31/6	3/6
A face cream.		
STYML ...	36/-	4/-
For oily complexions and blackheads.		
SILMERINE ...	22/6	2/6
Hair-curling fluid.		
BARSYDE ...	22/6	2/6
Dandruff eradicator.		
TAMMALITE ...	22/6	2/6
For grey and faded hair.		
LIQUID PERGOL ...	31/6	3/6
To check excessive perspiration locally.		
BICROLIUM ...	22/6	2/6
For whitening the hands.		
HARAPOSA ...	22/6	2/6
Nut oil shampoo.		
COCONOIDS ...	31/6	3/6
For figure development.		

### The Products of

Messrs. PARKER, BELMONT & CO.	
CLYNOL BERRIES	{ 36/- 4/-
For obesity.	58/6 6/6
SOFT PALERIUM...	45/- 5/-
For wrinkles.	
LIQUID NAIL POLISH ...	10/- 1/-
Brilliant and lasting.	

Stocked by ALL Wholesale Houses.

### COLONIAL DEPOTS AND AGENCIES.

Australia: ALL WHOLESAVERS, & DEARBORN (Australia), Ltd., Grace House, Clarence Street, Sydney.  
 South Africa: LENNON Ltd, C'ne Town etc.  
 SIVE BROS. & KARNOVSKY, Johannesburg.  
 India: FRAMJEE & SON, 'omhay SMITH, STANISTREET & CO., Calcutta.  
 New Zealand: SHARLAND & CO., Auckland & Wellington.  
 South America: DEARBORN (South America), Ltd., Calla Salta 264, Buenos Aires  
 Straits Settlements & Federated Malay States: MEDICAL HALL, Ltd., Singapore

*One of our Customers says:*

**"We are always pleased to handle Evan Williams' Specialities for, amongst other reasons—**

**"We never get any complaints.**

**"They are quick sellers.**

**"You leave the retailer a good margin of profit."**

*The EVAN WILLIAMS CO., LTD., 18 & 18a, Ogle St., Foley St., LONDON, W.1.*

**CHEMICAL WORKS ROERMOND**

H. RAAB & CO.

ROERMOND, HOLLAND.

*Manufacturers of*

Base Perfumery Products and Flower Oils.

- RACO -

MUSK AMBRETTE c.p. 100%

MUSK KETONE c.p. 100%

MUSK XYLOL c.p. 100%

OLEUM-MUSK art.

generally regarded as the  
**STANDARD.**

*Sole Representative for the U.K.:*

**ALFRED PAUL WHITE, 5 Water Lane,**

Gt. Tower Street, LONDON, E.C. 3.

# MARCUSON'S

DEFY  
COMPETITION  
IN  
**S P O N G E S**

BUYING IN  
LARGE QUANTITIES  
& BEING UNFETTERED  
BY ANY COMBINE  
WE CAN OFFER AT  
EXCEPTIONALLY  
LOW PRICES.

**MARCUSON  
BROS. & CO.**

*Only  
English Address:*

**32 MINORIES,  
LONDON, E. 1**

Cables: "Pantalaria, Ald., London."  
Phone: Avenue 840

NOW  
SELLING  
EVERWHERE  
to Purchasers of Powders  
and Face Creams.

**KemOlite**

*Nature's Own Radio-Active Beauty Aid*

**A MONEY-MAKER  
FOR CHEMISTS**

Because every Pot sold sells more.

TERMS : Selling Price 6/6,  
Trade Price 54/- per dozen.  
19/6 Bonus (3 Pots) with  
every 3 dozen order.

Sales Agents : PENNEY & CO.,  
Cavendish House,  
Old Cavendish Street,  
LONDON, W. and  
Bigg Market,  
NEWCASTLE-  
ON-TYNE.

Also All  
Wholesalers.

## "Jackel's Cream"

(without Grease)  
for THE HAIR

*Sold Everywhere  
Established 1883.*



CRYSTALISED  
7 oz. CREAM 10 oz.  
Trade Mark attached to each  
bottle.

"Jackel's Cream" fixes the hair in any desired position; is unexcelled as a dressing and does not soil the headwear. It removes Scurf and Dandruff, keeps the scalp healthy, and promotes the natural growth of the hair while maintaining its softness and brilliancy.

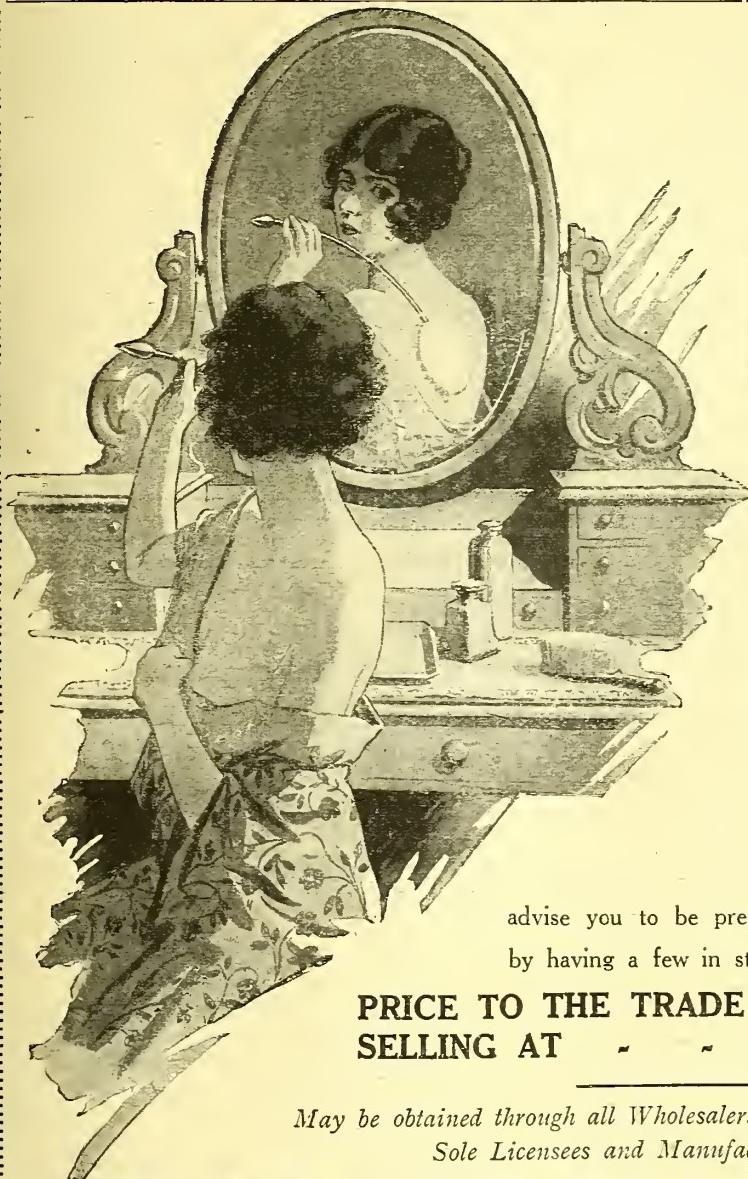
*Prices for Wholesale and Export  
Houses on application.*

**Jackel et Cie (of Paris)  
Ltd.,**  
**Sauchiehall Street,  
GLASGOW,**

A STRIKING NOVELTY BY DEARBORN LIMITED.

# The Ambedia Back Puff

PATENT No. 182060.



THIS useful appliance has been designed to fill a Long-felt Want.

Ladies will welcome and appreciate a Puff by the use of which they are enabled to dispense with the assistance of a maid, and powder their backs themselves.

We are advertising extensively in the Daily Press and Leading Ladies' Journals, and

advise you to be prepared to meet the demand by having a few in stock.

PRICE TO THE TRADE - 11/3 Nett.  
SELLING AT - - - 15/- P.A.T.A.

*May be obtained through all Wholesalers, or direct from the Sole Licensees and Manufacturers:*

**DEARBORN LIMITED**  
37 GRAY'S INN ROAD, LONDON, W.C.1.

*Patents pending in all the principal countries of the world.*

Parfumerie **Bourjois** Paris

# Poudre de Riz de Java

No. 45	No. 495
10/- per doz.	7/- per doz.
P.A.T.A.	P.A.T.A.
1/3 per box.	10½d. per box.

**No. 45.**  
Made in the following tints : **RACHEL, NATURELLE, BLANCHE, ROSE and BRUNETTE.**  
**A. Bourjois & Cie, Ltd., 66 Carter Lane, London, E.C.4.**  
Also Manufacturers of the celebrated "ASHES OF ROSES," No. 2, 15/- per doz.; P.A.T.A 1/9 per box.

*Pears'* SOLID BRILLIANTINE  
One of *Pears'* Golden Series.

Pears' Solid Brilliantine is a live line. Its sales increase every week. It stays on your shelves just long enough for your customers to know it is there. It pays you an excellent profit. It is a live line.

Only  
live lines  
give  
a living.

FOR 17 YEARS JOHN BONDS HAVE SAFEGUARDED YOUR PROFITS  
AND WERE ONE OF THE PIONEERS OF PRICE MAINTENANCE

RECOMMEND

# JOHN BOND'S "CRYSTAL PALACE" MARKING INK

A STRAIGHT 6d. & 1/- line that no one is allowed to cut.



6d. size in enlarged square  
Bottle (as illustrated).

Shows distributors a good profit, and is the easiest to sell, and will always bring repeat sales. Every year the public buy more, and it is an article you can recommend with confidence. You can often suggest Marking Ink to customers, for it is one of the things every one requires, and should have by them. They will always take JOHN BOND'S (Heat or Non-heat), which is warranted to fulfil every requirement.

YOUR WHOLESALE HOUSE KEEPS IT!

**6d. size, 4/3 doz.** (30% profit); **1/- size, 8/- doz.** (33½% profit).

A Linen Stretcher and Special Marking Pen given with the 1/- size.

N.B.—WHEN ORDERING, PLEASE SPECIFY IF HEAT OR NON-HEAT IS REQUIRED.

WORKS:

**75 SOUTHGATE ROAD,  
LONDON, N.1.**

### Wholesale Terms.

Minimum—1 gross 6d., 44/- or  
mixed order to same value; 1 gross  
1/-, 80/-; subject to customary  
discount on quantities. £2 4s. Od.  
and up carriage paid.



Obtainable from  
your Wholesalers,  
or direct from

**VANITIES LTD.**

(Sole British Agents),

15a WHITCOMB STREET, LONDON, W.C.2

### SNOWFIRE SELLS LIKE WILDFIRE



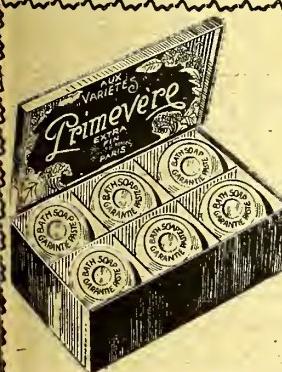
SNOWFIRE sales keep on spreading.  
SNOWFIRE "catches on" once it is  
used in a family and everybody wants it for  
chapped hands, rough skin, cracked lips, and  
many other uses.

Better profit for you than 1d. or 2d. tablets and it does not  
affect sale of expensive creams. Let people know you sell

Write to-day  
for Terms.

**Snowfire**  
TABLET

F. W. HAMPSHIRE & Co., Ltd.,  
Riverside Works, Derby.



This very High-class  
**FRENCH BATH TOILET SOAP**  
viz.,  
**PRIMEVERE**

neatly packed in Fancy Boxes containing  
12 tablets, weigh  $\frac{1}{2}$  ozs. each, assorted  
perfumes, guaranteed pure, packed in cases  
of 50 doz. at 33/- per gross, f.o.r. London.

**S. KALISKY LTD.**  
75 HIGH STREET, ALDGATE.  
Phones: 704 and 329 East.

Armour's Pure Glyc.  
@ 24/- gr.  
Chicago  
" @ 20/- gr.  
Milk Soap @ 16/- gr.  
Visitors' Toilets  
@ 5/6 gr.

Write for our Prices. Lists  
of wonderful Bargains in  
Toilet Soaps.

# NUCTONE

Regd.



## What "Users" say:

The number of unsolicited testimonials to the wonderful results obtained with NUCTONE would fill a book.

Here are some of the words used to express their satisfaction—"Delighted," "Excellent," "More than pleased," "Nothing like it," "Just what I wanted," "So easy to apply," etc., etc.

## Has Solved the Grey Hair Problem

NUCTONE is the discovery of an eminent Hair Specialist. Restores the colour gradually, permanently, safely. Guaranteed free from any injurious ingredients such as sulphur or lead.

## Repeat Orders Assured

Customers who try NUCTONE continue using it, they are so delighted with the results. This means a steadily increasing business for the Retailer.

**Retail Price 6/6 per Bottle  
Trade Price 48/- „ dozen**

*Manufactured by—*

**Stewart, Goodall & Dunlop, Ltd.  
4 Dering Street, LONDON, W.1**

*Stocked by Leading Wholesale Houses.*

**PUFFS** of ALL KINDS in DOWN and WOOL.  
**SOLID FACE POWDERS**  
COMPLETE WITH PUFFS.  
Inquiries invited by makers,  
**F. SCHUTZE & CO., Ltd.**  
BLACK BULL WORKS,  
Caledonian Market, London, N. 7.

**SHADEINE**  
FOR COLOURING GREY HAIR  
This popular article is largely advertised  
and stocked by all Wholesale Houses.  
Trial Size 8d., per post 10d., 1/4 size, per post  
1/7; 1/6 size, per post 2/11; 3/9 size, per post 4/6;  
6d. size, 6/- doz.; 1/4 size 12/- doz.; 2/6 size,  
24/- doz.; 3/9 size, 36/- doz.  
**THE SHADEINE CO., 58 WESTBOURNE GROVE, LONDON, W.1.**

**Talcum Powder**  
⊗ OF ALL GRADES ⊗  
FOR ALL PURPOSES

FOR SAMPLES AND PRICES APPLY TO:  
**W. Harrison & Co., Ltd.**  
16 MINCING LANE, LONDON, E.C.3;  
And at  
**14 MARKET PLACE, MANCHESTER.**

Phone : 1794 DALSTON.

**BEST BRITISH**

ESTABLISHED 1880.

## TOOTH BRUSHES

ON SALE AT ALL  
PRINCIPAL WHOLE-  
SALE HOUSES.

INCLUDING THE "FORT" BRAND  
PROPHYLACTIC in the ORANGE BOX.

**PER 16/- DOZ.**  
HARD, MEDIUM, SOFT,  
HARD UNBLEACHED.

**W. R. TILBURY & SON,**

47 Frampton Park Road,  
Hackney, LONDON.

# SPONGES

OWING to the increase and continued development of their Sponge Department, the **Soc. Anon. CHIAPAS** have formed a Subsidiary Company, which will deal in future exclusively in Sponges, under the title of

## THE SPONGE FISHING AND IMPORTING CO.

The direction and management remains the same as hitherto, and the only change is practically in the name. Send your enquiries for prices and type samples as before to

**32 Queen Victoria Street,  
London, E.C.4.**

Telephone : City 5824.

## G. B. KENT & SONS, LTD.

Are known the World over as the Largest Manufacturers of

### BEST BRITISH BRUSHES

Please write for full Particulars to—

**75 Farringdon Road, E.C.1.**

## WHEN YOU SELL SHAVING SOAP

introduce "Watts" Safety Razor Blades, the super British Blade at 3/6 per dozen, now packed in the new convenient nickel-plated containers.



A user in Gibraltar writes.  
"Must write to say how splendid your Blades are. Can't understand people buying foreign blades when such as yours are obtainable."

Re ailer's Profit 50% on cost.

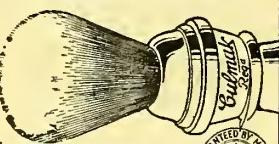
**JOHN WATTS,**  
Dept. 3, Lambert Works,  
SHEFFIELD.  
London :  
24 Redcross St., E.C.1.  
Established over 150 years.

They have a super keenness that no other perfect steel can make them different from and better than all others.

# DANGER-FREE SHAVING

SCIENTIFICALLY  
STERILIZED  
ALL BRITISH  
BRUSH

Deadly Anthrax, present in so many foreign Shaving Brushes, can never be found in an all-British guaranteed "Culmak"—says eminent Bacteriologist. Every bristle sterilized by most powerful germicide. Set in "Caisit" unbreakable germ-proof handle. Buy one, and enjoy danger-free shaving at last.



**3/6**  
EACH &  
UPWARDS

"Culmak"  
SHAVING STICK  
STERILIZED TOO!

"Culmak" Shaving Stick—a lovely, easy-shaving soap immediately sterilizes any razor-cut or broken pimple, guarding your skin against air-borne infection. Sold in tins.



**I/-**

USE BOTH & LAUGH AT GERMS!

All up-to-date Chemists and Stores sell "Culmak" guaranteed sterilized Brushes and Shaving Sticks

Explanatory leaflets free from—

"CULMAK," 50, DURHAM ROAD, LONDON, N.7

THIS ADVERTISEMENT is consistently appearing in the following well-known Journals :

STRAND—NASH'S—LONDON—WINDSOR—PEARSONS—CHAMBERS—WIDE WORLD—BLACKWOOD'S—PUNCH—LONDON OPINION JOHN O' LONDON—BRITISH WEEKLY—ETC.

Total Circulation 1½ Million

WE ARE RECEIVING LARGE NUMBERS OF DIRECT ENQUIRIES FROM THE PUBLIC.

**'Culmak' Shaving Soap**  
IS PARTICULARLY IN GREAT DEMAND.

Both "Culmak" Brushes and Soap have been awarded the very exclusive certificate of the Incorporated Institute of Hygiene.

SEND US YOUR NAME  
stating if you stock both or either;  
WE CAN SEND YOU CUSTOMERS.

**"CULMAK,"**  
48-50 DURHAM ROAD,  
LONDON, N.7.

# The Malted Milk Season is Here.

ADEQUATE PROFIT AND  
ALL REASONABLE SALES  
ASSISTANCE GIVEN.

*Thew, Hooker & Gilbey, Ltd.  
Buckingham.*

Every Pharmacist should look immediately to his stock of HOOKER'S MALTED MILK in anticipation of an increased winter demand.

It is now generally conceded that HOOKER'S MALTED MILK is a distinct improvement on all other preparations of its kind, not only in flavour, but also in nutritive power and digestive facility, as demonstrated by dietetic experience and independent "Lancet" Analysis.

# Hooker's MALTED MILK

**Heinr. Meyer & Co.'s**  
(Christiania)

FINEST LOFODEN  
NON-FREEZING, NEW SEASON'S

# Cod Liver Oil

*Supplied for the past 20 Years to the  
most important Buyers on this Market.*

FOR LOWEST QUOTATIONS APPLY TO OUR  
SOLE AGENTS  
**STEPHENS BROTHERS & CO.**  
Offices : 13a Finsbury Square, London, E.C.2.  
Warehouse : 3 & 4 Mallow Street, London, E.C.1.  
Telegraphic Address : "Glycerine, Finsquare, London."  
Telephone : Clerkenwell 2383.

**Dr. DE JONGH'S**  
LIGHT BROWN  
**COD LIVER OIL**  
IN IMPERIAL HALF-PINTS, 4/-

**ANSAR, HARFORD & CO., LTD.**  
182 Gray's Inn Road - - LONDON  
SOLE CONSIGNEES.



# Kellogg's

Krumbled Bran is a health necessity and should be eaten daily. It naturally and permanently relieves constipation.

Prices and samples from.—  
**S. D. SIMOND & CO., LTD.,**  
10 MONUMENT ST., LONDON, E.C.3, ENGLAND.

# THE WORLD'S BEST HONEY

NEW ZEALAND "IMPERIAL BEE."

THE FINEST QUALITY THAT BEES PRODUCE.

Cases 48×½'s Monopots ..	6/9 per doz.	carriage paid
" 48×1's "	12/3	" "
" 48×½'s Screw-top Glass Jars	8/3	" "
" 48×1's "	14/9	" "
" 18×1½'s Glass Toby Jugs ..	18/9	" "
" 30×1's " Tumblers	13/9	" "

Quotations for bulk (cases 2/60 lb. tins) all grades,  
on application to the sole European Agents :

**A. J. MILLS & CO., Ltd.**  
Produce and Canned Goods Department,  
14 TOOLEY ST., LONDON, S.E.1.

Telegrams :  
"Millanoney, Boroh,  
London."

Telephones :  
Hop 6444, 3664, 5443  
(9 lines)

Special Terms to Wholesalers and  
larger buyers.

## ALL CHEMISTS SHOULD STOCK **ABDINE**

THE GOLD MEDAL FRUIT DRINK.

Quick Seller. Big Profits. Over 40 years' Reputation.  
"Abdine" is the most popular Health Drink, superior to all Mineral  
Waters. The Original and only genuine Fruit Drink.  
Reduced Price List can be had on application.  
DUNCAN McGlashan, LTD., ABDINE WORKS, WESTFIELD ROAD, EDINBURGH.

**REAL SILVER LEAF**  
As supplied for many years to the leading Houses for Pills, Cachous, &c  
We also supply  
**GOLD LEAF AND GOLD POWDERS**  
WHOLESALE ONLY  
E. WINTER & CO., LTD.,  
Head Office: 64 Cheapside, London, E.C.2. Telephone: Central 9845

## Vinum Xericum

BUTTS. HOGSHEADS. QR. CASKS.  
108 gallons. 54 gallons. 27 gallons.

Grade A. STRENGTH 16°-17° Abs. Alc.  
Grade B. .. 18°-19° Abs. Alc.

**James V. Oldham**  
19 St. Dunstan's Hill, London, E.C.3.  
Telephone: Avenue 3013.

# Glaxo,

## Message to Pharmacists (England and Wales).

Glaxo is now entirely restricted to the Drug Trade, and in consequence your sales will materially increase, but there is nothing in the Glaxo Price Maintenance Scheme to prevent you obtaining your Glaxo requirements even though you may only wish to purchase a few tins.

Below you will find the names of the authorised Glaxo Distributors. They will send you a mixed parcel of Glaxo or Glaxo Malted Food to the value of £3 net. carriage paid, showing you a clear margin of 20 per cent. If at any time you find yourself out of stock of a particular size, do not hesitate to send in a post card. They will help you out to the extent of sending you two or three tins if necessary, so that your customer will not be disappointed.

There is not the slightest truth in the rumour that pharmacists will have difficulty in getting Glaxo. The difficulty will be for other Traders to get it, for

**Glaxo is the Pharmacist's line and  
only Pharmacists are being supplied**

Authorised Glaxo Distributors :

Messrs. SANGERS,  
258 Euston Road, LONDON, N.W.1.

Mr. A. S. GLENFIELD,  
7 Carlton Road, NOTTINGHAM.

Messrs. A. S. PRICE & Co., Ltd.,  
Reliance Works, Blackheath, BIRMINGHAM.

Messrs. W. EVANS & Co., Ltd., John St., CARDIFF  
(Also Branches at NEWPORT and SWANSEA).

Messrs. HEATHS (London), Ltd.,  
99c High Street, Wavertree, LIVERPOOL.

Messrs. SANGERS,  
Old Infirmary Buildings, NEWCASTLE.

Messrs. J. GILBERT JACKSON, Ltd.,  
338/340 Abbeydale Road, SHEFFIELD.

Messrs. W. D. YEOMANS & SON, Ltd.,  
Broad Street, SHEFFIELD.

Messrs. R. S. DYSON & Co., Ltd.,  
Peterson Road, WAKEFIELD  
(Also Branch at HUDDERSFIELD).

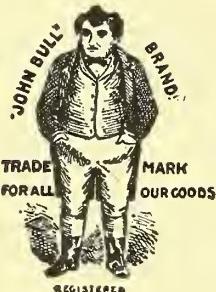
BRADFORD CHEMISTS' ALLIANCE, Ltd.,  
Horton Lane, BRADFORD.

Mr. T. W. COLTMAN,  
7/9 Sussex Street, MIDDLESBOROUGH.

Mr. W. GRIEVES, 1 Blanket Row, HULL.

THE SALES MANAGER,  
GLAXO HOUSE, OSNABURGH STREET,  
LONDON, N.W.1.

# “JOHN BULL” MALT EXTRACT IS THE BEST.

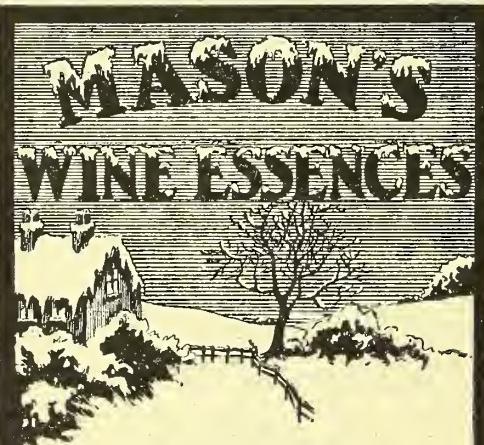


*The “John Bull” Brand is a sterling guarantee of the highest standards in every respect.*

MALT EXTRACT and  
MALT EXTRACT & COD LIVER OIL  
IN BULK OR CONTAINERS.

WHOLESALE AND EXPORT ONLY.

PAINÉ & CO., Ltd., St. Neots, Hunts.



PLEASE ORDER NOW  
AND APPLY FOR SPECIAL  
TERMS FOR WINDOW  
DISPLAY.

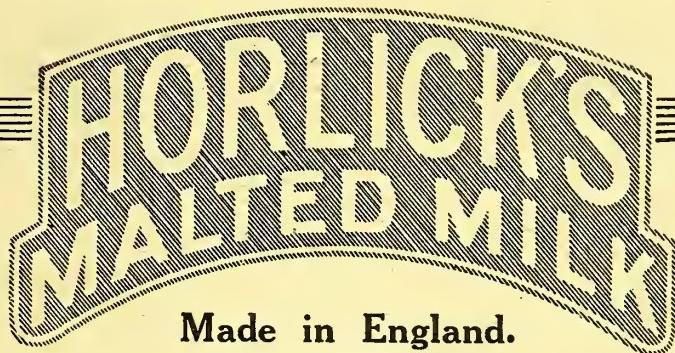
NEWBALL & MASON, Nottingham.

*English Filter*  
**POSTLIP** Papers

SQUARES CIRCLES FOLDED ROLLS  
WHITE GREY PLAIN ANTIQUE EMBOSSED CRINKLED  
SAMPLES FREE

*PURE ENGLISH FILTERING*  
Ross Mill Open  
POSTLIP MILLS

*Evans, Adlard & Co Ltd*  
Postlip Mills, Winchcombe, R.S.O.Glos.



Made in England.

You may with entire confidence recommend  
**HORLICK'S MALTED MILK**  
— The Original —  
to your Customers

Meat and drink in one—a delicious and sustaining Food-Drink which advantageously replaces tea, coffee & other beverages and is an admirable refresher, suitable for all ages.

It is the safest diet for infants and invalids ; being complete in itself and needing no additional milk, it overcomes the difficulties and dangers of a local milk supply.

The Sale of Horlick's Malted Milk—The Original—is and always has been directed through Chemists, while substitutes and imitations are often exploited through other Trades.

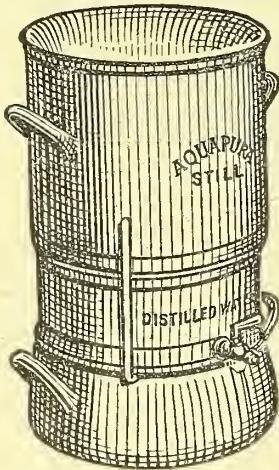
Attractive advertising material for Window Display and Counter Distribution free and carriage paid on application to the Company.

**HORLICK'S MALTED MILK CO., SLOUGH, BUCKS., ENGLAND.**

# The "AQUAPURA" WATER STILL

## WILL DISTIL ONE QUART PER HOUR

PRICE 52/6



The "Aquapura" Water Still is ideal for the pharmacy. Made in light blue porcelain-enamelled steel, this Still, apart from its great utility, has a high-class appearance.

Distilled water is essential in every pharmacy and the "Aquapura" Still will supply this at a cost that is almost negligible, as after the initial outlay the only cost is the gas.

Where there is no gas a Primus stove is used.

*We shall be pleased to send further particulars and a photographic reproduction of the "Aquapura" Still on receipt of post card.*

**THOMPSON and CAPPER, LTD.**

Manesty Buildings, College Lane

Telegrams: "Sanitas," Liverpool.

Established 1843.

LIVERPOOL

Telephone: Royal 2060.

## MACHINES

FOR

Soap Stamping

Soap Wrapping

Pill Counting and Filling

Tablet Wrapping or Foiling

Cube Wrapping

Our new Registering Gear ensures advertising matter being perfectly placed on your wrapped goods.

Send your enquiries to—

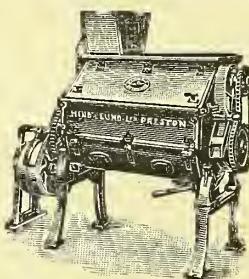
THE

**Forgrove Machinery Co. Ltd.**

DEWSBURY ROAD, LEEDS.

### "ATLAS" PATENT SIFTERS & MIXERS

Combined or Separate Machine.



Sifters fitted with adjustable brushes. Our patent agitator distributes the material evenly to every part of the Pan, producing a most intimate mixture.

**HIND & LUND,  
LTD.  
ATLAS WORKS,  
PRESTON.**

Established 1791. (4)

## SALVO PETROLIA

The Perfection of Petroleum Jelly

MANUFACTURED SOLELY BY

**THE DEE OIL COMPANY, Ltd.**  
DELTA WORKS, BOOTLE, LIVERPOOL.

Packed in barrels, kegs and smaller packages according to requirements.

Other Grades

PETROLEUM JELLIES, WHITE BASES, ETC.

Samples and prices on application.

"OLEUM DEELINÆ," a certain cure for Eczema.

Phone: 186 Bootle.

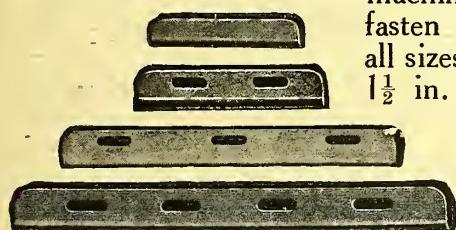
Wires: "Cestrian Liverpool"

# Colton Pharmaceutical Machinery

## FOOT POWER CLIP FASTENER and NICKELOID CLIPS.

Will simplify the difficult problem of effectively sealing the ends of collapsible tubes and at the same time produce an attractive article with a permanent seal. The

machine is designed to fasten clips to tubes of all sizes from smallest to  $1\frac{1}{2}$  in. diameter and a corresponding range of clips are available.



Clips made in all sizes for tubes from  $\frac{1}{2}$ " to  $1\frac{1}{2}$ " diam.

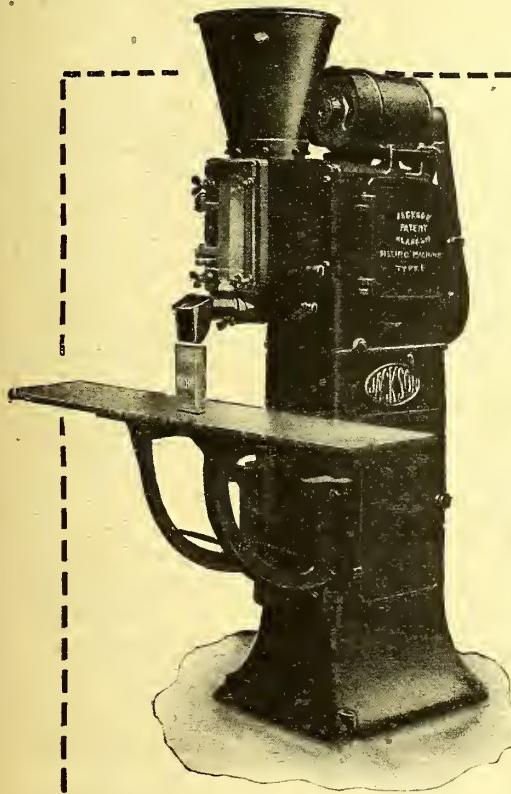


*Sole  
British  
Agents:*

**JOHN J. GRIFFIN & SONS, LTD.**  
KEMBLE STREET, KINGSWAY, LONDON, W.C.2.

PHONE: GERRARD 2621

TELEGRAMS: "GRAMME, WESTCENT, LONDON."



THE SPECIALISTS IN  
**Weighing & Measuring  
Filling Machines**  
MACHINES FOR EVERY PURPOSE

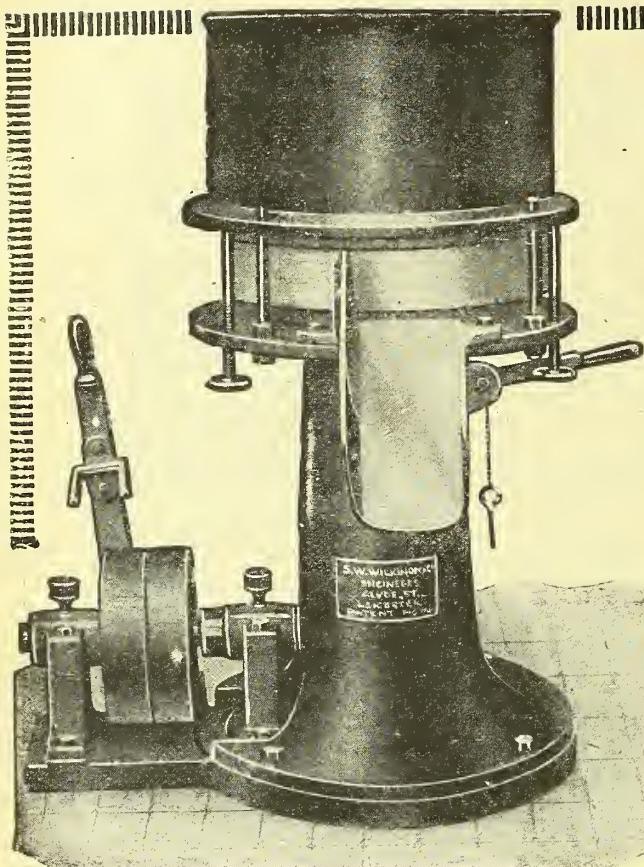
The Illustration shows  
**Type 'E' Measuring and Filling Machine**  
THE SPEEDIEST MACHINE ON THE MARKET.

Using two nozzles, this machine  
can fill with one operator 3,900  
 $\times \frac{1}{4}$ -lb. tins or cartons per hour.

*Write for full particulars.*

ALSO MAKERS of the WELL-KNOWN JACKSON PATENT GRINDERS

**J. G. JACKSON, Limited,**  
Coustonholm Works, Pollokshaws, GLASGOW.  
Telegrams: "COUSTHOLM" Glasgow. Telephone: Langside 1215.  
London Office: Clun House, Surrey Street, Strand, W.C.2.



## THE "SPEEDY" Combined Mixing & Grinding MILL.

Ointment

Tooth-Paste.

**F**OR PERFECTLY MIXING dry powders with a liquid, or semi-liquid, then grinding the whole into a velvety, smooth, homogeneous paste.

**A**NY degree of fineness or coarseness may be obtained by adjustment while the mill is running.

*Write for lists of this and other Machinery to the Makers*

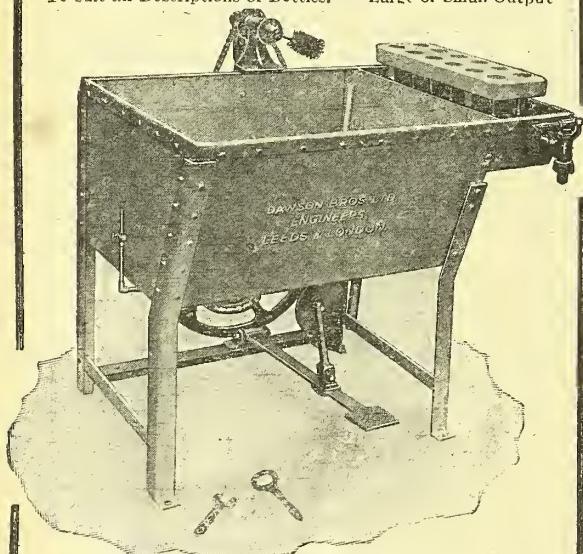
**S. W. WILKINSON & CO.,**  
Specialists in Chemical Machinery,  
WESTERN RD., LEICESTER.

Telephone : 3783 Cent. Grams :  
"Wilkinson, Leicester 3783"

[1]

## DAWSON BROS., LIMITED.

*The World-Renowned Bottle-Washing Machine Makers.*  
To suit all Descriptions of Bottles. Large or Small Output

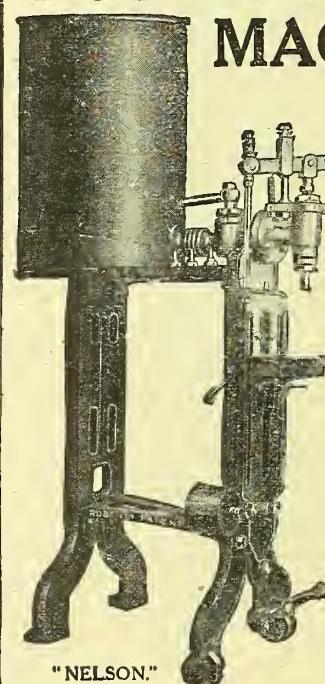


No. 21. Treadle Bottle-Washing Machine.  
Most Suitable for Manufacturing Chemists.

**VENTNOR IRON WORKS, GOMERSAL, Near LEEDS.  
EASTWOOD RD., SOUTH WOODFORD, LONDON, N.E.**

*Write for Complete Lists.*

## ROBERTS' ORIGINAL PATENT BOTTLE-FILLING MACHINES



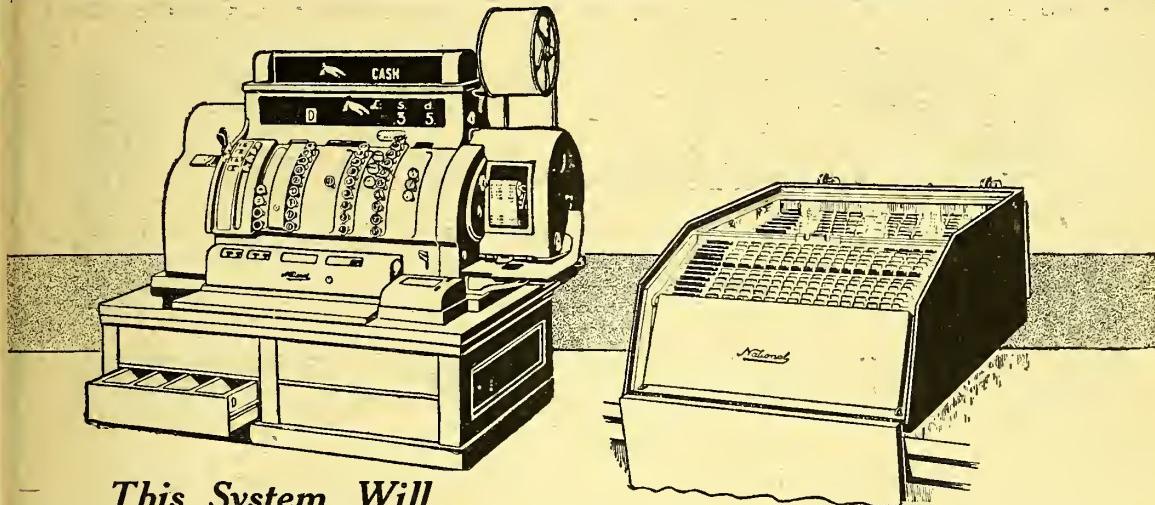
Don't waste money on imitations, buy Roberts' Machines which actually Created the Records for

**CLEANLINESS**  
**SIMPLICITY**  
and Rapidity in  
Bottle Filling.

*NOTE the Address :*  
**ROBERTS' PATENT  
FILLING MACHINE CO.  
33 ROUND CROFT ST.,  
BOLTON.**

Our latest patent  
"Alpha," price £14,  
will fill 10 gross bottles  
per hour.

*Write for Particulars.  
All Rights Reserved.*



*This System Will*

# Make Your Business Grow

Cash and Credit Business can be controlled with the greatest Simplicity, Protection and Economy by a latest model

Asst.	£	s.	d.	Trans. No.	Date
AA -	3	5	-	0015	DEC 6-22
CHAS. BERNARD,					
Cash Chemist,					
AVENUE ROAD,					
GREAT YARMOUTH					

Front of Ticket.

ChA - 10.8 -	-0025	DEC 6-22
Amount of Transaction	Sale Number	Date
ChA - 10.8 -	-0025	DEC 6-22
Amount of Transaction	Sale Number	Date
CHAS. BERNARD,		
Cash Chemist,		
AVENUE ROAD, GREAT YARMOUTH		
Rhode 6 Dec. 1922		
Assistant	Account Forwarded	126
19	Overprint	19

Overprinted Sales-Slip.

## NATIONAL CASH REGISTER and the

## NATIONAL CREDIT FILE

ON cash sales, the register issues a ticket showing printed details of the transaction. An identical record is made inside the register.

Where a written bill is necessary, full particulars of the transaction are printed across both original and duplicate bills. This prevents forgotten charges, disputes and losses.

Assistants' takings are separately totalled, and all transactions are classified, dissected and added as they occur. This automatic book-keeping saves much time, work, worry and expense.

All credit records are protected and controlled by the Credit File. Day Books, Ledgers, and Monthly Statements are dispensed with.

It keeps accounts always balanced and ensures quick collections.

The  
N.C.R. Co., Ltd.  
225,  
Tottenham Ct. Rd.,  
London, W.1

Please send without  
charge or obligation,  
further details of your  
Complete System.

Name .....  
Address .....

C. & D.

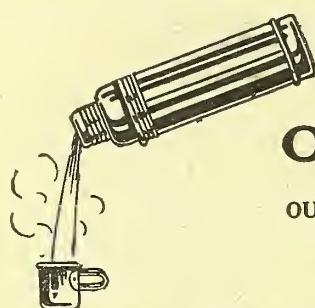
**Learn more about this System.  
POST THE COUPON TO-DAY**

**Learn more about this System.  
POST THE COUPON TO-DAY**

**Learn more about this System.  
POST THE COUPON TO-DAY**

Telephone:  
Museum 1680 (4 lines).

Branch Offices  
in all Large Towns.



Telegraphic Address :  
Owtazinify Ave, London

Cable Address :  
Owtazinify, London

Telephone :  
London Wall 5482

## OWTAZIN COMPANY.

Regd.

OUT.....AS.....IN Import & Export Merchants.

JOHN TOLMIE—Pharmacist.

Code : Western Union, Universal Edition.



# VACUUM FLASK MANUFACTURERS

JAPANNED BODY, ALUMINIUM SHOULDER,  
LARGE CUP.

Pint Size.	Quart Size.
doz. nett.	doz. nett.
Cases of 100 .. 12/-	Cases of 50 .. 30/-
," 300 .. 11/3	," 100 .. 27/-
	," 300 .. 24/-

SUPERIOR QUALITY DRAWN ALUMINIUM  
CORRUGATED TUBE CASES.

Cases of 100 2/1 each nett. Cases of 300 1/10 each nett.

Drawn Brass Corrugated Tube Cases, Heavily  
Nickel Plated.

Cases of 100 3/- each nett. Cases of 300 2/9 each nett.

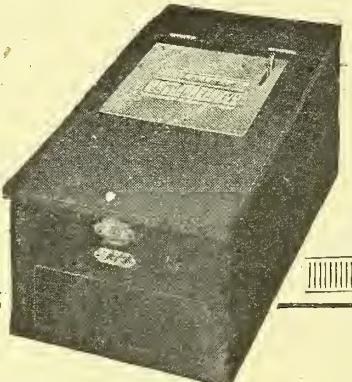
### ALL GUARANTEED DOUBLE TESTED.

TERMS :—CASES FREE. FREE DELIVERED. CASH WITH ORDER.

CREDIT ACCOUNTS OPENED ON APPROVED REFERENCES. WHOLESALE ENQUIRIES SOLICITED.

50-51, FORE STREET, LONDON, E.C.2.

Price,  
**70/-**  
Net.



The

## NATIONAL AUTOGRAPHIC TILL

combines the workmanship and  
knowledge gained during our

40 Years' Experience

Size: 8 $\frac{1}{4}$ " high, 10" wide, 19" long.  
Writing space 4 $\frac{1}{2}$ " wide. Record roll  
ruled for four classes of transactions.

**Fully Guaranteed by The N.G.R. Co.**

Write for further details :

• The National Cash Register Co., Ltd.  
225 Tottenham Court Rd., London, W.1.

## PINE TREE TOILET PAPER.

We are pleased to state  
that we are able to  
supply again our old  
and favourite proprietary  
brand in Cases, Packets  
and Rolls.

Send for Samples & Prices.



# A "Ronoleke" Triumph

THE sales of the "Ronoleke" Hot Water Bottle are justifying all that we predicted—considerably more, in fact. The powerful advertising campaign, backed by the undeniable, proved superiority of the article, is reaping its reward. But to an extent amazing even to us. The demand for the popular sizes in particular is enormous.

The public have been quick to see the advantages of the "Ronoleke" patent neck. No wiring and no washer; just a solid rubber neck built into the bottle itself. It cannot leak, and is in every way much stronger than other makes.

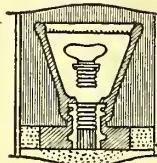
The "Ronoleke" is a hot water bottle that you can take a pride in recommending to your customers. It brings credit to your business.

Make the "Ronoleke" your hot water bottle speciality. It will please your customers, just as the quick sales and ample profits will please you.

# "Ronoleke"

TRADE MARK

*It completely  
supersedes*



*all other Hot  
Water Bottles*

£5 orders and  
over less 5%  
plus a further

### Super Red

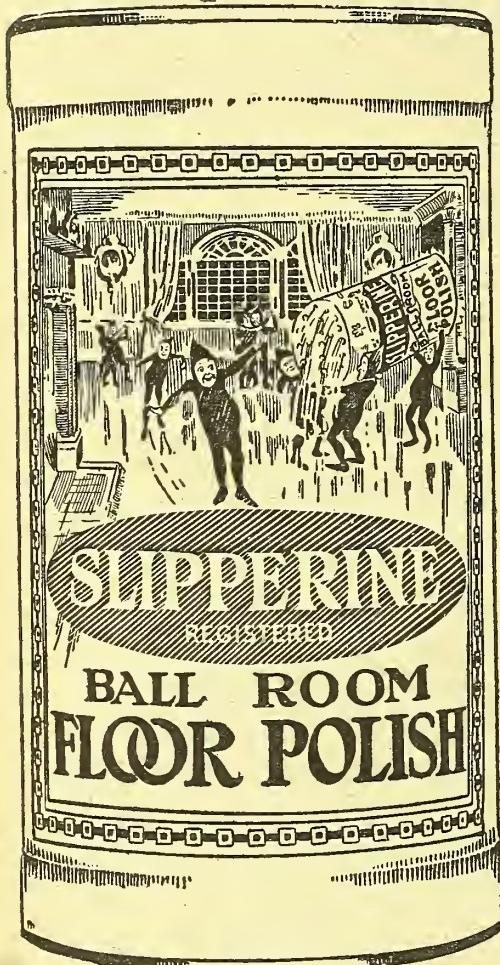
### Drab

SIZE	Wholesale Prices		Retail Prices	
	8 x 10	6/-	9/-	4/8
8 x 12	6/8		10/-	5/3
10 x 12	7/8		11/6	6/-

5% for prompt  
cash.

All prices protected by P.A.T.A.

**Obtainable from all leading wholesalers**



# SLIPPERINE

REGISTERED

All the name implies—

a smooth, perfect dancing surface, over which the feet glide easily.

The effect is immediate, the result lasting, and there is absolutely no dust.

Attractive get-up and generous advertising aids help initial sales, the quality ensures repeats.

*P.A.T.A. prices guarantee a profit worth while.*

**1/6—12/- doz.** 3 doz. or equiv., less  $2\frac{1}{2}\%$

**2/6—20/- doz.** 6 doz. or equiv., less 5%

1 doz. 2/6 being considered equivalent to 2 doz. 1/6.

SHOWCARDS WITH EACH ORDER.

If your wholesaler does not stock, the makers will dispatch, carriage paid, 4 doz. 1/6 (or equivalent) with a full supply of showcards, &c.

Distributors to the Wholesale Trade :—  
London and District

MAY, ROBERTS & CO., Ltd., London.

**WHOLESALEERS :**

BUTLER & CRISPE, London.

FRANCIS NEWBERRY & SONS, Ltd.,  
London.

MAY, ROBERTS & CO., Ltd., London.

W. SUTTON & CO., Ltd., London.

SANGERS, London.

PREMIER DRUG CO., Manchester.

RICHARD DANIEL & SON, Derby.

MACSONS, Ltd., Blyth, Northumber-  
land.

BOILEAU & BOYD, Ltd., Dublin.

MAY, ROBERTS & CO., Ltd.,  
Dublin.

HASLETT, Ltd., Belfast.

JOHN MORTIMER & SONS, London-  
derry.

EXPORT—W. C. RUDKIN & CO., 44 King William Street, London.

A FEW BROWNIE MODELS IN PLASTER CAST ARE NOW  
AVAILABLE. WRITE US, STATING STOCK IN HAND AND USUAL  
WHOLESALEER'S ADDRESS, WHEN FULL PARTICULARS WILL  
BE FORWARDED.

*Makers : JOHNSTON & ADAMS, DUNDEE.*

# Good Printing Sells your Goods.

WE could say a lot about our claim to be "The Chemists' Printers." We claim to turn out Printing with just that degree of distinction necessary to make the public buy. But we are interested parties and we prefer to let our work speak for itself.

Therefore, we suggest you send a Postcard asking to see specimens of representative SHOWCARDS, CARTONS, LABELS, WRAPPERS, CATALOGUES, WINDOW BILLS, and other things we print.

Examine the quality of the printing and general get-up, together with the price, and your conclusions will result in trying us with confidence with your next printing order.



THOMAS  
**WAIDE & SONS**  
THE CHEMISTS PRINTERS  
LEEDS

## JUST TWO OF OUR SPECIAL XMAS OFFERS!

**Order as BLADES PARCEL.**

	Ord. cost	Retails for	to you
Gillette Blades, 1 box of 10 dozen	£2 5 0	£1 11 8	
Ever-Ready Blades, 6 dozen	1 4 0	1 16 0	
Valet, 6 1/6 or 12 2/3 packets	1 7 0	1 19 0	
Clemak, 12 2/6 packets	1 10 0	1 0 0	
7 o'clock, 3 4/6 packets	0 13 6	0 9 6	
Durham-Duplex, 3 1/6 packets	0 4 6	0 3 3	
Rapid Steel, 3 dozen blades	0 12 0	0 8 0	
<b>You sell for</b>	<b>7 1 0</b>		
Postage	0 1 6		

Your ordinary cost would be ... 5 8 11

Our Special Offer is £5 Post Paid. Cash with Order. Your Nett Profit on cost is 56%. Your Nett Saving on Purchase is nearly 10%. and REMEMBER that these Goods are all well-known Proprietary Lines—not unknown lines that get dusty on your shelves.

**Order as SAFETY RAZOR PARCEL.**

	Ord. Cost	Retails for	to you
Gillette 21/- New model	£1 1 0	£0 14 9	
Gillette 21/- Old model (12 blades)	To-day worth	...	
Gillette 21/- Old model, 12 blades & mirror, covered cloth case	0 12 6	0 10 6	
Gillette Brownie	0 15 0	0 13 6	
Valet Leather Set, 6 blades, 21/- type	0 15 0	0 13 6	
Valet C model	0 6 0	0 4 8	
Ever-Ready New Model	0 6 0	0 4 8	
Clemak Latest Type	0 7 6	0 5 0	
7 o'clock No. 20 set	0 12 6	0 8 6	
Durham-Duplex	0 5 0	0 3 6	
Flyingman	0 1 0	0 0 9	
<b>You sell for</b>	<b>5 6 6</b>		
Postage	0 1 6		

Your ordinary cost would be ... 3 16 0

Our Special Offer is £3 Post Paid. Cash with Order. Your Nett Profit on cost is 77½%. Your Nett Saving on Purchase is more than 25%. Lines—constantly being advertised in the Daily Press—Lines that Sell—For other Special Offers send for Latest Cut-price List.

**LOUIS J. STAMBOIS, 34 CALL LANE, LEEDS.**

## NEPENTHE.

### THE SAFEST AND BEST PREPARATION OF OPIUM.

The word "Nepenthe" is registered under the Trade Marks Act, and is our exclusive property. No substitute may be dispensed when "Nepenthe" is ordered in a prescription. "Nepenthe" comes within the regulations of the Dangerous Drugs Act, 1920.

**FERRIS & COMPANY, LIMITED, BRISTOL.**

# PURE ORANGE WINE

## A. MILLAR & CO., LTD., DUBLIN

(VINUM AURANTII B.P.)

Prepared in strict accordance with the Formula of the British Pharmacopoeia.

(Wholesale only)

Samples from Head Office, Thomas Street, DUBLIN, or London Office, 43 Great Tower Street, LONDON, E.C. 3.

## CONTAINERS

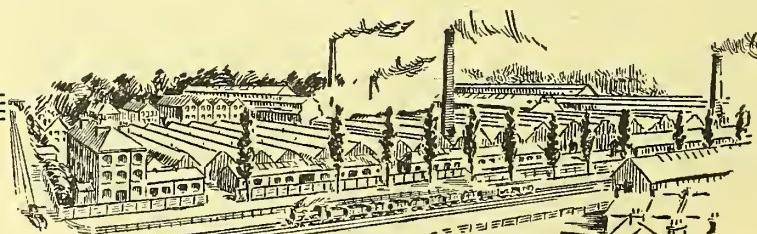
VICKERS LIMITED are specially engaged at their Erith Works, Kent, in the design and manufacture of the most up-to-date plant for making all kinds of pilferproof shipping containers.

This form of container is lighter and stronger than a wood case—also more convenient as it can be stored in the flat and made up as required. It will also be found to be cheaper. Vickers Limited are in the position to give free advice as to plant and can now supply the machinery.

ERITH.

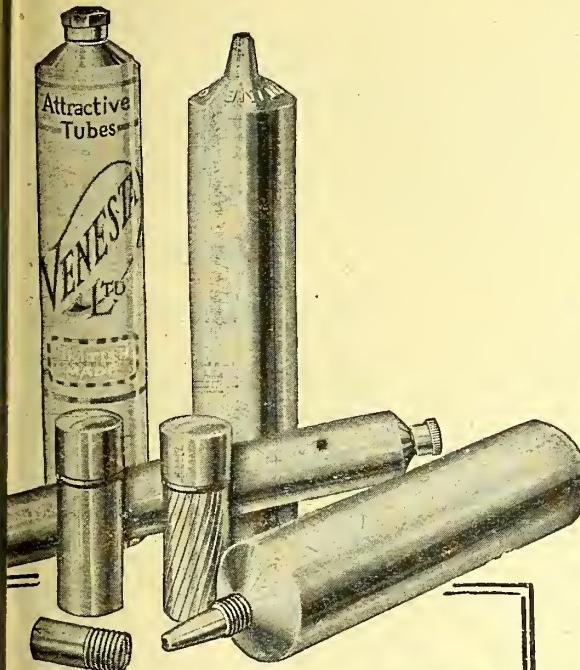
Department No. 75

KENT.



Telephone:  
ERITH 68.

Telegrams:  
VICKERS  
ERITH.



## *Venesta Tubes*

When ordering your next supply of tubes remember that Venesta collapsible tubes possess a quality and finish that make them a real selling force.

They are made from Pure Tin, Lead or Lead-coated with Tin and supplied plain or enamelled and printed with designs to suit customers' own requirements.

We also supply Lip-salve Cases, Sprinklers, etc., and shall be pleased to forward illustrated lists, samples and current prices on application to—

G. Dept.

## VENESTA LTD.

1 Great Tower Street, London, E.C.3.

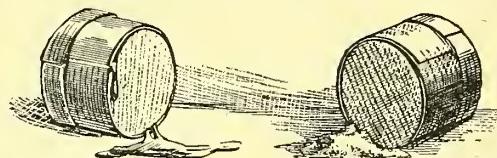
Actual Manufacturers of  
**TINFOIL**

Plain, coloured and embossed in any size, gauge or shape.

## "Corruganza" SEAMLESS OINTMENT BOXES

*Have replaced the old "Willow" boxes—Greaseproof—the bottoms cannot fall out.*

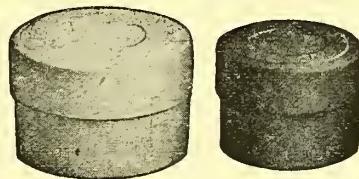
GERMAN "WILLOW" BOXES are again being offered at lower prices, but these boxes will not hold Powders, nor, in warm weather, Ointments.



*THEY ARE DEAR AT ANY PRICE.*

Stick to the ONE-PIECE principle

## "Corruganza" SEAMLESS PILL BOXES.



THE phenomenal success of the "Corruganza" Seamless Ointment Boxes has resulted in our manufacture of Pill Boxes made on just the same One-Piece principle. Stocked in usual sizes. They cost a little more than the Ring and Disc style, but THEY HOLD THE GOODS, and do not fall to pieces in handling or in the pocket.

*Wholesale or Export only from*

**HUGH STEVENSON & SONS,  
LIMITED,**

Summerstown Works, London, S.W. 17

And at Manchester, Birmingham, Leith, Perth & Glasgow.

*Kindly mention this Journal when replying to the advertisement.*

Destroys  
Germs.

KILLS GERMS

# SPRAZONE

PURIFIES THE AIR

Approved  
by  
Eminent  
Bacteriologists.

## World's Greatest Atmospheric Disinfectant.

USED DAILY FOR SPRAYING OFFICES, FACTORIES, INSTITUTIONS AND THE HOME.

Complete Outfits Consisting of Sprayer, Filter Funnel, and Size (a) Container sufficient to make 2 Gals.  
**£1 1 0**

Refills.  
Size (a) 6/9  
.. (a) 12/6



(Awarded the Order of Merit by the Council of the Institute of Hygiene.)

Ideal Reform Outfits consisting of Nickel pump Sprayer, Filter Funnel and Concentrated Essence to make 1 qt. 6/6

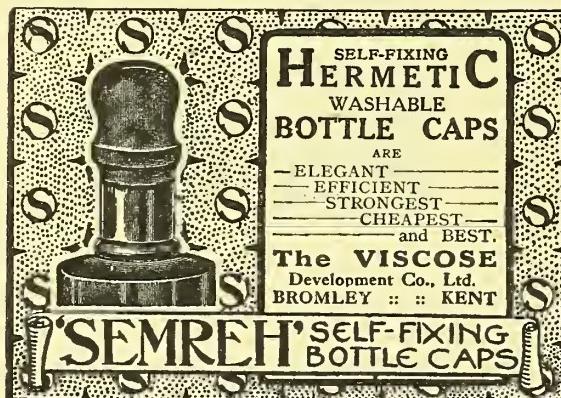
Refills.  
Size (b) 17/6  
Trial bottles 1/9

EXPORT ENQUIRIES INVITED FOR  
SPRAZONE (Standard) ATMOSPHERIC DISINFECTANT.  
SPRAZONE (FLY) SOLUTION.  
Foreign Agencies Entertained.

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"TREATISE ON THE HOUSE-FLY."—A scientific and interesting pamphlet just published, 3d. Post Free.



To CHEMISTS and DRUG STORES. IT PAYS to sell FARMER'S "BAITED" PHOSPHOR PASTE  
Made from an improved formula. It is the BEST RAT and MOUSE POI ON IN THE WORLD. ONE USER recommends to another. Export Agents: AYTON LAUNDER & CO., LTD. Duke Street, Live pool. Manufacturers: F. FARMER & CO., HOMERTON, LONDON.

## CIGARS for XMAS HAVANA AND BRITISH IN ALL PACKINGS.

Write to The London Dealers for Wholesale Price List of London's lowest prices. Enclosures sent to any Wholesale House.

**SADLER & MOORE**, Spital Square, Bishopsgate, E.1

## BATTLE'S Specially packed Lines for Chemists

**Disinfectants**—Carbolic and Pine Fluids, all strengths.

Pink Carbolic Powder, enamelled tins.

Carbolic Tooth Powder. Cloudy Ammonia.

Horse Condition Powders, Colic Drinks, Red and Yellow Drenches. Lambing and Cattle Oils, Foot Rot Paste and Lotion.

Embrocation (Veterinary and Household), Seed Dressings, Formalin.

Approved Sheep Dips (Liquid), Powder and Paste.

Weed Killers (Poisonous and Non-Poisonous), Lawn Sand, &c.

**BATTLE, HAYWARD & BOWER** (formerly Battle, Maltby & Bower), Victoria Chemical Works, Lincoln.

*Dress your windows  
effectively*

—and get that Second Look

Do your windows attract prospects? Are they doing their full work? They are your best salesmen. They should attract the passer-by, not once, but twice, thrice, and so on until he or she buys.

King's Window Papers give to your window just that effect that catches the eye of the passer-by. They make the prospect stop and look, and look again—and then they buy.

King's Window Papers are high in quality and low in price.

*Send for List "C" NOW for inspection, free of charge and post free.*

**J.C. KING LTD.**

42-60 Goswell Rd., LONDON, E.C.1



**HIGH-CLASS WORK AT COMPETITIVE PRICES.**

**THE CALDICOT TIN STAMPING WORKS, Limited**

CALDICOT, Nr. NEWPORT, MON.

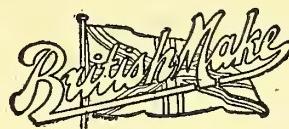
**SPECIALISTS IN—**

**DECORATED TIN BOXES AND ADVERTISING SHOW TABLETS.**

All kinds of Plain & Fancy Tin Boxes, Bung Tins, Ash Trays, Toys and other Novelties.

**PRINTED DECORATED, LACQUERED AND ENAMELLED TINPLATES AND BLACKPLATES FOR THE TRADE.**

**Enquiries invited. Satisfaction Guaranteed.**



**SUPPORT HOME INDUSTRIES.**

**SPECIFY ROBINSON'S  
CHEPETTE  
BOXES**

when ordering from your Wholesale House.

\*

Both quality and appearance are superior to the poor grade Willow Boxes of German and Austrian make.

\*

Deliveries are prompt and reliable.

\*

Prices have been reduced and the good quality maintained.

**ROBINSON & SONS, LTD.**

CARDBOARD BOX MANUFACTURERS,

**CHESTERFIELD.**

# ENLARGEMENTS

Rich, Deep  
& Velvety.



*The Sign of Satisfaction.*

These are the qualities you get when you send your orders to us, AND QUICK DISPATCH, 4 DAYS.

Remember a satisfied Customer is your best advertisement—it is ours too!

WRITE FOR TRADE LIST FREE.

**THE EXPRESS DEVELOPING CO.**  
296 High Road, Streatham, S.W. 16

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Phone: STR. 470

## There's BIG MONEY in AMATEURS' ENLARGEMENTS

when done the unrivalled "Developoint" way. Suggest to your customers turning their best snapshots into pictures, and secure good winter business when the ordinary photographic season is dead.

WRITE TO-DAY  
FOR  
DESCRIPTIVE  
PRICE LIST.

**GERALD MORRIS**  
KODAK SPECIALIST  
ROCHESTER

## THE SOUTH OF ENGLAND COLLEGE OF PHARMACY

186 CLAPHAM RD., LONDON, S.W.9.

Principal: H. LUCAS, Ph.C., F.C.S.,  
assisted by a fully qualified and competent staff.

### EXAMINATION RESULTS.

1921 October Examination.	Passes 37 (Minors 25, Part I 12).
1922 January "	Passes 20 (" 16, " 4),
1922 April "	Passes 30 (" 12, " 17)
	Total 87. (Major 1).

N.B.—These passes represent 80% (or more) of the presentation from this college at each examination.

Such results speak for themselves.

A new full time course started on October 10th. Fee 6 months, 20 guineas; 9 months, 30 guineas. For particulars apply the Principal.

### MANY SUCCESSES IN THE EXAMINATIONS!

Your Opportunity to

## QUALIFY IN OPTICS

PRACTICAL WORK. Students taking the Course may receive personal tuition in the practical work AT ANY TIME DURING THE COURSE.

*Expert Tuition for the SIGHT-TESTING DIPLOMAS of the Worshipful Company of Spectacle Makers (F.S.M.C.); the British Optical Association (D.B.O.A.); or the National Association of Opticians (F.N.A.O.).*

Write for full particulars—

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64 High Street BARNET

## PHOTOGRAPHIC ENLARGEMENTS.

Quality Work at the Right Price.  
Prompt Delivery. Good Profits.

TRADE LIST FREE ON REQUEST.

**Wallace Heaton, Ltd.**

17-27 CHANGE ALLEY, SHEFFIELD.

## 'KEEP THE PHOTO FIRES BURNING'

by pushing the sale of enlargements. All work is executed by the Kodak Projection Enlargers. Lantern Slides and Transparencies finished in a few days. Show-Cards and Price Lists on application.

"FORBEST LIMITED," 171a Brook St., BROUGHTY FERRY

### PRELIMINARY EXAMINATION for PHARMACEUTICAL STUDENTS

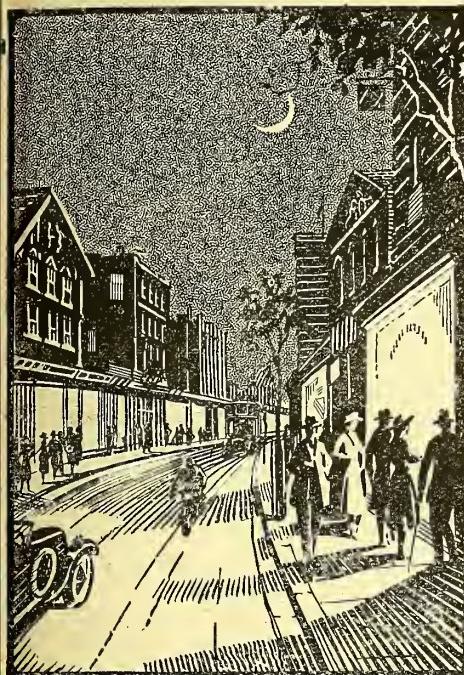
The College of Preceptors holds Preliminary Examinations in March, June, September, and December. All the Examinations are held in London, Aberdeen, Birmingham, Blackburn, Bristol, Cardiff, Edinburgh, Glasgow, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, and Nottingham. For the June and December Examinations there are other Centres, including Blackpool, Brighton, Carmarthen, Cheltenham, Croydon, Exeter, Margate, Plymouth, Portsmouth, Sheffield, Southampton, Southend, Southport, Sunderland, Weston-super-Mare, and York. For Regulations apply to the Secretary, College of Preceptors, Bloomsbury Square, London, W.C.1.

## WESTMINSTER COLLEGE OF PHARMACY.

Principals { G. S. V. WILLS, Ph.C. (Founder).  
P. H. WOODNOUGH, Ph.C., F.C.S.

A Six Months' Course will commence  
on JANUARY 2, 1923.

For Details of Arrangements, apply to the Principals,  
**190 CLAPHAM ROAD, S.W.9.**



If they must Shop Early help them to Choose Late!

## *Make your Window Work Overtime!*

Your window can be your best Advertisement—keep it in action when doors are closed, but streets still thronged with possible buyers.

After dusk a well-lighted window will enhance the prestige of your Business, add to the popularity of the thoroughfare, and bring to your counter buyers whose selection is already made.

Electric Light can be turned on or off at any hour by a Clock Switch without any trouble to you.

**ELECTRICITY will make the window pay its Rent.**

E.D.A.

A  
**PHILIP JOSEPHS  
& SONS LTD.**  
**SHOWCASE**  
**QUICKLY EARNS**  
**ITS COST.**

**Try One!**

93 OLD ST., LONDON, E.C. 1.  
Phone—2191 Clerkenwell. Wires—"Josiphiah London."



**"EVERY CUSTOMER  
SOUNDS ITS PRAISES."**

Mr. I. R. Mackey, The Rexall Pharmacist of Bray, Ireland, writes November 20th, 1922:—  
"Enclosed find cheque for 'Rodine' as order herewith. I HAVE THE GREATEST SATISFACTION IN SELLING 'RODINE.' EVERY CUSTOMER SOUNDS ITS PRAISES."

"Rodine" is the attractively advertised, price-protected, satisfactory sideline. It yields nearly 100% protected profit to every Chemist who sells it. Write the Maker now. IT PAYS TO PUSH "RODINE."

**T. Harley,** Manufacturing Chemist, **Perth, Scotland**

# Common Sense in Business

When a customer asks you for "GRIPS" FIRST-AID PASTILLES you can rest assured he knows what he wants.

Don't insult his intelligence by offering him something entirely different.

Show your own common sense by believing that your customer has some.

Ensure your share of the "Big Business" now being created in your district.  
Stock now.

**'GRIPS'**  
REGD.  
**FIRST-AID PASTILLES**

*Distributors to the Wholesale  
and Retail Chemist Trades.*

**Thos. Christy & Co.**

4-12 Old Swan Lane,  
LONDON, E.C. 4.

# SPECIAL OFFER of

CHEMISTS'  
8-oz. PRINTED  
COLOURED  
BOTTLE  
WRAPPERS

.....  
*Write us for Samples  
and Prices.*

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*Chemists' Printers,*  
224 BURLEY ROAD, LEEDS.

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LABEL & GENERAL PRINTERS

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Telegrams: FORSHAPCO, WESTCENT, LONDON.

FINE ART SHOWCARDS, CARTONS, ENVELOPES FOR SHAMPOO POWDERS, CORN SILK, ETC.

"Sol-Vo" SANITARY PAPER IN ROLLS & PACKETS.

AGENTS FOR THE REGISTRATION OF TRADE MARKS.

**G.T. TURNSTILE HIGH HOLBORN LONDON W.C.1**

## TRY THIS TEST

Economy of retail selling must be *proved* before it can be really understood.

Here is a test:—

Compare the time taken to persuade a customer to buy a cheap, unknown, inferior Malt and Oil, with that in which you can sell a bottle of

# 'KEPLER'

(TRADE MARK)

## COD LIVER OIL WITH MALT EXTRACT

Time is money. You will appreciate, therefore, the economy of selling cost which this branded article secures for you. It pays you to sell 'KEPLER' every time.

*In bottles of two sizes, at 33/- and 60/- per doz.  
(subject to usual terms)*



BURROUGHS WELLCOME & CO.  
LONDON

G 1071

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Get this display into your window on the first wintry day. The resulting sales will astonish you.

A SIMPLE window dressed with the Stock Showmatters supplied by The United Chemists' Association, Ltd., Cheltenham, in connection with their splendid Bronchial Lozenge Advertising Scheme. The noteworthy feature of this campaign is the prominence given throughout every bit of publicity matter to the picture of the handy little tin and to the slogan "*The little lozenge that cures a lot of coughs.*"

IT PAYS TO LINK UP WITH SUCH ADVERTISING AS THIS!

□ □

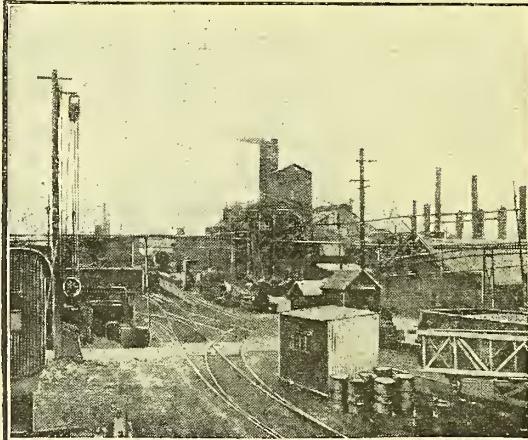
United Chemists' Association, Limited - Cheltenham Spa.

## 'Ialine' Disinfectants

Also  
**FLUIDS**  
containing  
10—80 %  
Tar Acids.  
High Co-efficient  
**FLUIDS**  
up to 18—20  
Rideal-Walker  
Method.

**LYSOL**  
**SHEEP**  
**DIP**

Approved by the  
Board of Agriculture  
for Sheep  
Scab.



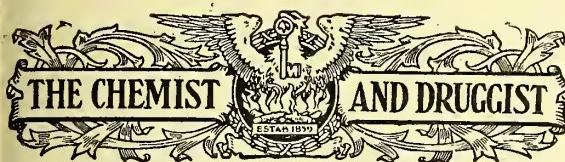
### Coal Tar and Ammonia Products

Benzols, Toluol, Solvent Naphthas, Carbolic and Cresylic Acids, Creosote and Fuel Oils, Pitch, etc. etc. Timber for Dock and Harbour work. Deals, Battens, Boards, Floorings, etc. Railway Sleepers, and Crossing Timbers, Telegraph Poles, etc. etc. Saw Millers and Timber Preservers.

**Burt, Boulton & Haywood, Ltd.** Salisbury House, London Wall, E.C.2

Telegrams: "Burboul, Ave, London." Cables: "Burboul London." Codes: A B C (5th Edit.); Lieber's; Western Union; Bentley's.

CARBOLIC POWDERS
CREOSOTE POWDERS
CO-EFFICIENT POWDERS
PINE OIL POWDERS
PINE OIL FLUIDS
PINE OIL BLOCKS
NAPHTHALENE
.. BALLS
.. CANDLES
.. TABLETS
.. FLAKE
.. BLOCKS
.. POWDER
LIQUID SANITARY SOAP
WOOD PRESERVATIVE
Etc. Etc.



## A WEEKLY JOURNAL OF PHARMACY AND OF THE CHEMICAL AND DRUG TRADES

THE CHEMIST AND DRUGGIST is in circulation and reputation the leading journal addressing the Chemical and Drug trades in the British Empire and other countries in the Old and New Worlds. It is the official organ of the Pharmaceutical Society of Ireland, the Chemists' and Druggists' Society of Ireland, and of other Chemists' Societies in the Overseas Dominions.

### SUBSCRIPTION RATE

TWENTY SHILLINGS a year payable in advance to any part of the world, including a copy of *The Chemist and Druggist Diary*. Subscriptions may begin with the first issue of any month. Single Copy, 9d., post free; *Diary*, 10s., post free. Postal orders and cheques should be crossed "Bank of Liverpool and Martins, Ltd."

Prix de l'abonnement annuel : le journal une fois par semaine, et l'agenda une fois par an, 20s., francs.

TERMS FOR ADVERTISING may be obtained on application to the Publisher.

**Head Office : 42 CANNON STREET, LONDON, E.C.4**

Telegrams : "Chemicus, Cannon, London." Telephone : Central 3617 (3 lines).

Branch Offices : 49 County Buildings, 4 Cannon Street, Manchester. (Telephone : City 52.) Melbourne and Sydney, Australia.

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### C. & D. Stock-taking Sheets

FOR the purpose of halving the labour of taking stock by chemists we are preparing pads of Stock-taking Sheets, based on the *C. & D. RETAIL PRICE LIST*, of drugs, chemicals and galenicals. The items are arranged on ruled paper in the same order as in the *C. & D. RETAIL PRICE LIST*, which is afterwards employed for pricing out the articles, the amount of each column being then transferred to specially ruled pages at the end of the pad. Hints on stock-taking are given on the inside of the cover. The items in the Stock-taking Sheets cover all drugs, chemicals and galenicals found in chemists' shops, and, being in alphabetical order, are easily found for entering up. By means of the Stock-taking Sheets one person can take stock, but it is better for two assistants to work together, the more experienced calling out the quantity of the drug, etc., and the other entering it in the Stock-taking Sheets. Further particulars were given in the *C. & D.*, December 2, p. 776.

The price of the complete pad of Stock-taking Sheets is 2s. 6d., post free, cash with order.

READY ON DECEMBER 15.

### English and Welsh News

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

### The Royal Society

The following officers and members of Council for the Royal Society were elected at the annual meeting :—

*President*, Sir Charles Sherrington; *Treasurer*, Sir David Prain; *Secretaries*, Mr. W. B. Hardy and Mr. J. H. Jeans; *Foreign Secretary*, Sir Arthur Schuster. *Other Members of Council*: Professor V. H. Blackman, Professor H. C. H. Carpenter, Professor T. R. Elliott, Professor A. Harden, Sir Sidney Harmer, Professor W. M. Hicks, Professor H. F. Newall, Professor G. H. F. Nuttall, Professor D. Noel Paton, Lord Rayleigh, Professor O. W. Richardson, Sir Ernest Rutherford, Dr. A. Scott, Mr. F. E. Smith, Sir Aubrey Strahan, and Professor J. T. Wilson.

In the course of his presidential address, Sir Charles Sherrington announced that Professor Starling had been appointed as the first Foulerton professor, and that a subscription portrait of Sir Joseph Thomson (by Mr. Fiddes Watt) had been received by the Society. The President subsequently distributed the medals, the awards of which were recorded in our issue of November 11 (p. 653).

### Dental Board

Applications for registration have been received from the following persons on the grounds that they are pharmaceutical chemists or chemists and druggists, and that immediately before July 28, 1921, they had a substantial practice in dentistry in the course of which they personally performed such operations and gave such treatment, advice and attendance as are usually performed or given by dentists. Any objection to registration must be lodged within one calendar month from December 1, and must be supported by evidence sufficient to show a *prima facie* case against registration :—

Callam, William Eggleton, 194 Crystal Palace Road, East Dulwich, S.E.22.

Heywood, James, 41 Victory Road, Little Lever, Bolton. Hird, Reuben, 563 Manchester Road, Cubitt Town, E. 14.

Kingston, Richard, The Medical Hall, Lucan, co. Dublin.

McCarthy, James, Main Street, Kircubbin, co. Down. McRoberts, John Andrew, 71 Ormeau Road, Belfast. O'Driscoll, John, The Medical Hall, Bride Street, Kildare.

Perkins, William Lewis, The Pharmacy, Ystalyfera. Thompson, Harry, 25 Ebbw View Terrace, Newbridge, Mon.

Weston, John Henry, Devonshire Buildings, Runcorn. White, David, 157 Uxbridge Road, Hanwell, W.

The Registrar asks us to draw attention to the fact that persons actually registered as dental students, who give evidence that they have been pupils or apprentices for twelve months or more to registered practitioners whose names now appear on the Dentists' Register, may apply to the General Medical Council to have their registration antedated for a period not exceeding twelve months. The duration of the normal curriculum is four years, and in certain cases the above concession may have the effect of shortening the period of study required. This point, however, is subject to the requirements of the Licensing Body whose qualification is sought, and inquiries should be made from the body on the subject.

### Inquests

A verdict of "Suicide while of unsound mind" was returned by a jury at the inquest held by the Marylebone (London) coroner on November 27, on the body of Max Onslow-Ford, M.R.C.S., L.R.C.P., Wendover, who, the evidence showed, threw himself out of a hotel window and was killed by the fall. The police divisional surgeon deposed to finding a hypodermic syringe and empty bottles which had contained morphine tablets. There was fresh blood on the point of the needle, added the witness. It appeared that the deceased had suffered from kidney trouble.

C O

An inquest was held recently at Richmond, Surrey, on the body of Mr. John Fraser, chemist and druggist, whose body had been recovered from the Thames on November 28. The evidence showed that Mr. Fraser, who had been unemployed for some time, left his lodgings in Fulham on the day prior to the discovery of his body, and seemed at that time in his usual state of health. A medical witness stated that death was due to asphyxia caused by drowning. Questioned by the coroner as to cocaine and other poisonous articles having been found in possession of the deceased, the doctor said they might have been traveller's samples. A verdict of "Found drowned" was returned.

An inquest was held in Manchester, on November 29, on the body of Mr. Charles Swinn, Ph.C., who died at his residence on November 26. It appeared that on July 21 a motor-driver employed by the Manchester Board of Guardians was backing an ambulance out of a garage when he accidentally knocked the deceased down. Dr. Morrison attended Mr. Swinn, and found that he was suffering from fractured ribs and an injury to the shoulder: he was confined to his bedroom for three months, but was then able to go out. Death was due to heart failure following bronchitis and pleurisy, and had been accelerated by the accident. The coroner, in recording a verdict of "Accidental death," remarked that there had been a certain degree of negligence in the case.

#### Fraud Charge

At Marylebone Police Court, London, on December 5, George Augustus Jennings, flax agent, Oxford Gardens, W.10, who had been remanded on a charge of forging and uttering a cheque for £1,500, was additionally charged with obtaining credit to the amount of £10 by fraud from Mr. Edward Jones, chemist and druggist, 232, Kilburn Lane, W.10. Mr. Jones, giving evidence, said the accused was introduced to him in his shop, early in November, as the prospective Liberal candidate. On November 7 the accused called at his shop and asked his wife to be chairman of a meeting the following Saturday afternoon. At that same visit the accused said his secretary had forgotten to change a cheque; could he lend him a little money to go on with? He did not mention any sum, but witness said he asked if £10 would do, and the accused said it would. Witness gave him ten Treasury notes for £1. On polling day he saw Jennings, and said: "What about my £10?" Jennings said he would see him in a few minutes, and shortly afterwards he did return with another man, whom he asked to write a cheque for £10. Next morning witness paid the cheque into his account at Barclays Bank, Harrow Road, with instructions for special clearance, and it was returned marked "R.D." The £10 was still owing. The hearing was adjourned.

#### Poisonings

The following cases of fatal poisoning, among others, have been recorded since our last report:—

An inquest was held at Ilford, recently, on the body of William Edward Jackson (19), an assistant at the Uphall Chemical Works, who was found dead in bed with a bottle containing chloroform and another containing ether by his bedside. The evidence showed that the young man had given promise, but had lately been depressed. Mr. T. R. Blyth deposed that during the past fortnight there had been a difference in his work. A verdict of "Suicide during temporary insanity" was given.

At Burnley, recently, an inquest was held on the body of Miss Eliza Ann Butcher, a middle-aged woman who, after being missed for some days, was found dead in her house. A medical witness stated that he found 70 gr. of potassium quadroxalate in the stomach, and that the deceased had probably taken  $\frac{1}{2}$  oz. of it. A verdict of "Suicide" was entered by the coroner.

Other cases recorded include an accident with spirit of salt, and suicides by means respectively of lysol, ammonia, and oxalic acid.

#### Birmingham

Mr. and Mrs. Barrow Cadbury have returned from a visit to the United States.

A lecture entitled "The Application of Paint to Iron and Steel," was delivered by Dr. J. Newton Friend, in the Municipal Technical School, on December 1.

Mr. W. Marshall Freeman, addressing a meeting at Gloucester Chamber of Commerce on November 27, advocated the Midland-to-the-sea waterways scheme, and expressed the opinion that it would be undertaken.

A laboratory assistant at the Lower Priory Works, of Southall Bros. & Barclay, Ltd., was mixing a powder containing chlorate of potash, on November 30, when an explosion occurred. The assistant, John Nicholson, was severely burned.

#### Liverpool

Mr. John H. Robinson has returned from his holiday tour in Devon, Cornwall, London and Birmingham.

The Liverpool Pharmacists' Club will hold a fancy dress ball in the second or third week of January. Negotiations are in progress for a club house.

Viscount Leverhulme has had to postpone his promised address to the Liverpool Chemists' Association. His lordship personally expressed his regret to Mr. J. L. Hirst.

Mr. Harold Wyatt, J.P., Ph.C., has had a visit this week from an apprentice of many years ago, who is now an agricultural engineer in Chile. Of Spanish origin, he learned English with Mr. Wyatt's assistance in six months. Mr. Wyatt, by the way, was sent, a few days ago, 300 rates summonses to sign.

At Manchester Assizes, on November 30, William J. Parker, motor driver, and William A. Cunningham, carman, were each sentenced to eighteen months' hard labour for an assault on Mr. Franklyn Byram, drug-store proprietor, Breck Road, Liverpool, with intent to rob him. (C. & D., November 4, p. 622.)

Some encouraging signs of a Christmas trade are appearing, and the demand for presents rather than for medicines predominates. Pharmacists are making increased efforts, and combined advertising is mooted. The window-show of W. Burgess, Ltd., Whitechapel, forms an attractive blend of Christmas gifts, harmonious colour and deft mottoes.

The annual dinner of the Institute of Chemistry and the Society of Chemical Industry (Liverpool sections) was held at the Adelphi Hotel on December 2. Dr. F. J. Briske presiding. Replying to the toast of "Our Guests," Dr. Armstrong, F.R.S., President of the Society of Chemical Industry, expressed a hope that, as Dr. Clayton had got into Parliament, the lot of chemists would be materially improved. Many societies appealed to chemists and people engaged in the profession of chemistry, but the two Societies which had made the most progress during the last five years were the Institute of Chemistry and the Society of Chemical Industry. He hoped they would come together in the future, because he felt that if they spoke with one voice they would be able to attain to the position they desired.

#### Manchester

Mr. J. C. Kidd, chemist and optician, Cheetham Hill Road, has been nominated as the municipal candidate for the Cheetham ward, rendered vacant by the election of Councillor Wood to the position of alderman.

By the sudden death of Mr. Charles Swinn, Ph.C., Moss Lane West, Hulme, a large number of chemists received a shock. Mr. Swinn was at the Chemists' Exhibition, and seemed fully recovered after his serious accident of a few months ago.

An interesting book has been presented to the Manchester Pharmaceutical Association by Mr. Henry Tinker, chemist, of Irlams O'Th'Height. This book, which has been added to the library of the local Association, is the minute book of the "Apothecaries, Chemists and Druggists of Manchester," and the first meeting entered in the minutes was held at the Commercial Tavern Hotel, Brown Street, on February 1, 1828. Mr. Danson occupied the chair, and Mr. Standing was secretary. Many amusing rules and regulations were imposed on members (for what would appear to us now as very trivial offences), some being fined for selling Epsom salts at less than 1*l*d.

per oz. One wonders whether there are any chemists living who were associated with this body in its later days.

Councillor F. W. Bates, J.P., Brooks's Bar, presided on December 4 at the annual prize distribution at the Old Trafford Technical Institute of the Stretford Secondary School.

Mr. John Cleworth's twenty-first anniversary in business at 56 Ducie Street, Greenheys, has been celebrated by a distribution of free gifts. As will be seen from the accompanying illustration, Mr. Cleworth's main window was divided into four panels or sections, with gifts of a different kind in each. The special window created much interest in the neighbourhood, and good business resulted.



#### Newcastle-on-Tyne

Taylor's Drug Co., Ltd., have opened a new branch in Clayton Street. Each purchaser of four shillings' worth of goods on the opening day was presented with a hair-brush.

Mr. Gerald A. France, J.P., ex-M.P. for Batley and Morley, head of the firm of J. A. France & Son, Newcastle and Hull, has become managing director of Scott & Turner, Ltd., manufacturers of Andrews' Liver Salt, in succession to the late Mr. W. H. Scott. Mr. France has been a member of the Northumberland County Council since 1903, and was elevated to the aldermanic bench in 1912.

#### Nottingham

The Office Appliances Exhibition held in the city during the present week contained many features of interest to chemists.

There was a large gathering of members of Boots' Athletic Club on December 1, when the annual dinner was held. Major A. Knowles presided.

#### Sheffield

Chemists are dressing their windows with Christmas goods, but it is not expected that the higher-priced articles will be in much demand, although there are signs of a slight improvement in trade.

Dissatisfaction is expressed at the delay in dealing with test Insurance prescriptions in this area, the ones recently reported on being eight months old. The payment to chemists for the month's dispensing is £1,121. Mr. J. T. Appleton has been appointed to the North-East Midland Pricing Bureau Committee.

#### Miscellaneous

**EARLY CLOSING.**—Lancaster pharmacists have applied to the Town Council for an order fixing the times of closing as follows: Monday, Tuesday, Thursday, 7.30 p.m.; Wednesday, 1 p.m.; Saturday, 8 p.m.

**SHOPS ACT CASE.**—At Old Street Police Court, London, on November 30, Wilfred Pomerantz, drug-store proprietor, Brick Lane, E., was fined 5s. for selling a

shampoo powder after closing time on July 20, an early-closing day.

**MEDICINE STAMPS.**—The Commissioners of Customs and Excise inform us that medicine duty stamps, which were formerly supplied in two sizes only, are now supplied in three sizes, the dimensions of the third and smallest size being  $2\frac{5}{8}$  in. by  $\frac{5}{8}$  in., including the margin. Stamps of this size are supplied in sheets containing 20 stamps each. Appropriated stamps of this size are not printed.

**FINE-CHEMICAL INDUSTRY DISPUTE.**—A meeting of employees' unions involved in the dispute in the fine-chemical industry (*C. & D.*, December 2, p. 757) was being held as we went to press. The secretary to the Joint Trade Union Committee had previously issued a statement to the effect that all the returns received were in favour of a stoppage of work. The number of workers affected is given as between 8,000 and 10,000.

**THERM INQUIRY.**—The President of the Board of Trade has appointed a Committee to inquire and report as to the method of charging for gas upon a thermal basis. The members of the Committee are: Sir Clarendon Golding Hyde (chairman), Mr. Arthur Balfour, J.P., Sir James Martin, J.P., F.S.A.A., Mr. A. A. Pugh, and Mr. W. J. U. Woolcock, C.B.E. The secretary is Mr. W. H. L. Patterson, to whom all communications should be addressed at the Board of Trade, Great George Street, London, S.W. 1.

**INTERNATIONAL OPIUM CONVENTION, 1912.**—The Home Office has issued, "in order to make clear the Government policy on a matter which is of public interest in this and other countries, and to remove misunderstandings which appear to exist in certain quarters," a ten-page pamphlet setting forth the action taken in respect of the Hague Convention of 1912 by the British Government before, during and since the war. The pamphlet recapitulates familiar facts as to the consumption of and legislation in respect of opium in various parts of the world.

**REGISTER OF NURSES.**—The Nurses' Registration Act, 1919, provides for the compilation of an official Register of nurses. The Minister of Health has just given notice that the Register has been completed. The effect of this notice is that after three months from December 5 the unauthorised use of the title "registered nurse" will render a person liable to a fine not exceeding £10 for a first offence and £50 for any subsequent offence. The first Register will be published by the General Nursing Council, 12, York Gate, Regent's Park, London, N.W.1.

**ROYAL INSTITUTION.**—The juvenile lectures at Christmas will be delivered by Professor H. H. Turner on "Six Steps Up the Ladder to the Stars." The first lecture will be on December 28. The lecture arrangements before Easter include lectures by Professor F. G. Donnan, on "Semi-Permeable Membranes and Colloid Chemistry," and Professor I. M. Heilbron on "Photosynthesis of Plant Products." The first Friday evening discourse will be by Sir James Dewar, on January 19, on "Soap Films as Detectors of Stream Lines, Vortex Motion and Sound."

**CHRISTMAS SHOPPING CONCESSION.**—The Home Secretary has directed the suspension from Monday, December 18, to Saturday, December 23, both days inclusive, of the General Early Closing Order for Shops in force under the Shops (Early Closing) Act, 1920. The London County Council, in drawing the attention of tradesmen within its area to this notice, adds: ". . . the shopkeeper may keep his shop open either on the half-holiday immediately before or on the half-holiday immediately after the Bank Holiday. The term 'Bank Holiday' includes Christmas Day. A shop assistant need not be given the prescribed weekly half-holiday in the week immediately preceding Christmas Day—if the assistant is not employed at all on Christmas Day or on Boxing Day, and if such assistant is also given his half-holiday during Christmas week."

**PHOTOGRAPHIC FAIR.**—The 1923 Photographic Fair, which will be held from March 15 to 24 (inclusive), a longer period than any of its predecessors, is to be housed in the Holland Park Hall, London, W., where the space available for exhibits is considerably in excess of that

devoted to the purpose in former years. The Photographic Dealers' Association and the Professional Photographers' Association will each hold a congress in London during the Fair. Applications for floor space or for further particulars should be made to the organising secretary, Mr. Arthur C. Brookes, Sicilian House, Southampton Row, London, W.C.1.

**DRUG TRAFFIC CASES.**—At Cardiff, on November 29, Reginald Downing Hunter, company director, was sentenced to a month's imprisonment and a fine of £100 for the unlawful possession of cocaine.—At Newport (Mon.), on the same date, Otto Leuk, cook, was ordered three months' hard labour for being in unauthorised possession of 27 grains of cocaine hydrochloride and 78 grains of morphine hydrochloride.—At Marlborough Street Police Court, on November 30, Frank Turner, engineer, was sentenced to six months' hard labour for being an unauthorised person offering cocaine for sale.—At Cardiff, on November 30, Tuen Kut, a Chinaman, was ordered a month's imprisonment for having opium in his possession.

**SALE OF FOOD AND DRUGS ACTS.**—At the meeting of the Westminster City Council on November 30, Alderman Sir R. Woolley Walden, chemist and druggist, said that it had been decided to call the attention of the Health Committee to varying magisterial decisions, the result of which was that defendants selling tinned peas containing copper sulphate to the extent of 2.21 and 2.29 gr. per lb., respectively, were exonerated, while others were fined in respect of peas containing about half as much copper sulphate.—Three samples of Gregory's powder analysed in Lambeth during the past quarter were found to be adulterated.—Ten samples, including seven "prescriptions," taken in Middlesex during the past quarter were all found satisfactory.

## Irish News

### Pharmaceutical Society of Ireland

The latest dates for lodging applications for the January examinations are: Thursday, December 21, for the Preliminary Examination; Wednesday, December 27, for the Registered Druggist and Pharmaceutical Licence Examinations; Monday, January 1, 1923, for the Pharmaceutical Assistant Examination. Applications should be in the Registrar's hands by 11 a.m. on the respective dates.

#### Belfast

Mr. T. W. McMullan, M.P. (Thomas McMullan & Co., Ltd., wholesale druggists, Belfast), sailed on December 2 for a holiday in South Africa. Reference to the matter was made earlier in the day at the annual meeting of the Belfast Transport Officials' Club, when the chairman proposed the health of Mr. McMullan.

In the Northern High Court, before Mr. Justice Brown, on November 30, Mr. Hugh Crossin, Ph.C., 130 Donegall Street, Belfast, appealed against the dismissal of a claim for compensation for the breaking of a plate-glass window. The dismissal was confirmed, his Lordship holding that there was no evidence of malice.

Wilson, Jordan & Alexander, wholesale druggists, Tomb Street, Belfast, were granted a decree for £7,300 (by consent) at the Belfast Court on November 29 in a claim for £7,785, for the malicious burning of their premises last April. Counsel for the applicants said the sum of £7,300 had been agreed upon, subject to his Honour holding that the fire was malicious. The Deputy Recorder (Mr. J. Leech, K.C.) said he was satisfied that the premises were maliciously burned. Counsel for the City Corporation said the applicants had met them in a most fair and helpful manner. In order to save the ratepayers they immediately set about salvaging the stuff, and actually salved £1,363 worth. Judge Leech said he wished all claimants would act as fairly.

A discussion took place on December 4, at a meeting of the Belfast Chamber of Trade, regarding the proposal of the City Corporation to take powers in their new Parliamentary Bill to establish and run drug depôts. Mr. J. C.

Culbert, M.C.P.S.I., who presided, said they could only hope that this proposal was included in utter ignorance, rather than think it represented a deliberate and calculated plan. Municipal services of that kind were simply the thin end of the wedge for the nationalisation of industry, and, on principle, must be opposed with all the vigour and strength at their disposal. Mr. W. J. Hardy, Ph.C., asked were there any precedents for the proposal of the Corporation. Why should they select the chemists' trade, which was the least remunerative of all, for a trial of Communistic trading? Mr. James Tate, M.P.S.I., said this was probably an election "stunt," and they should not regard it too seriously. He hoped the Corporation would be better advised than to attempt to run chemists' shops night and day. If they attempted that venture, they might branch out on others. Mr. H. G. Pring, Ph.C. (Grattan & Co., Ltd.), said his firm had kept open night and day at the request of the medical profession. At the lowest estimate it cost them, before the war, £300 out of pocket per annum. If the new proposal carried, at the lowest computation they would have to have two qualified men at each dispensary, and, taking them at £5 per week, the cost for twelve dispensaries would mean £6,240 per year, which would come out of the rates to which other traders contributed. On the motion of Mr. Marshall, seconded by Mr. Anderson, the Parliamentary Committee was empowered to take the necessary steps to oppose the provisions in the Bill under criticism.

#### Londonderry

Mr. Robert Ramsey, R.D., has been elected a vice-president of Ballycastle Hockey Club.

Londonderry wholesale druggists are represented on the recently-formed Rotary Club by Mr. Harry Smith, R.D.

Mr. Samuel S. Badger, M.P.S.I., the Medical Hall, Magherafelt, has been sworn in as a magistrate for County Londonderry.

Londonderry District Asylum Committee of Management invite tenders for medicines for three or six months from January 1, 1923. Tender forms will be received up to December 15.

## Scottish News

### Brevities

Mr. Peter Fenton, F.C.S., chemist and druggist, announces that he will be allowed to remain at his present address, 101 High Street, Kirkcaldy, until the middle of January 1923 (see *C. & D.*, October 28, p. 586).

Dr. J. J. R. Macleod, states the "Aberdeen Press and Journal," which refers to the Insulin Diabetes Treatment in THE CHEMIST AND DRUGGIST (November 25, p. 738), is the son of the Rev. Robert Macleod, senior minister of John Knox U.F. Church, Aberdeen. Professor Macleod attended Aberdeen Grammar School and graduated M.B. Ch.B., with honours at the University in 1898. He subsequently took the D.Ph., at Cambridge. In 1903 he was appointed Professor of Physiology at the Western Reserve Medical College, Cleveland, Ohio, and a few years ago went to the post which he still holds at the University of Toronto.

#### Edinburgh

Mr. John Mackay, chemist and druggist, will shortly open a pharmacy at 110 Pitt Street.

An appreciation, by Professor F. O. Bower, F.R.S., D.Sc., of the late Sir I. B. Balfour, whose death is recorded in this issue, appeared in the "Glasgow Herald," of December 5. When professor of botany in the University, of Glasgow, Sir Isaac secured, among other things, the rebuilding of the main range of plant houses in the Botanic Gardens, while at Oxford, where he went in 1895, he reconstituted the ancient garden of the Botanical Institute. On his appointment to Edinburgh University he again carried out a re-organising scheme, the last addition being finished shortly before he retired. He was at one time an examiner to the Pharmaceutical Society in Scotland, his successor being Professor Bower.

## Legal Reports

**Dangerous Drugs Act Case.**—At Bedford, on November 28, Agnes Mildred Macgown, M.B., Ch.B., whose age was given as twenty-three, was summoned for having unlawfully endeavoured to obtain cocaine from Mr. Arthur W. Morgan, chemist and druggist. The town clerk, prosecuting, said that the defendant called on November 23 at the Bedford Drug Stores, Midland Road, and handed in a prescription which contained cocaine hydrochloride, presumably for a Mrs. Smith, who was stated to be suffering from throat trouble. Mr. Morgan asked the defendant to call again, and in the meantime communicated with the police. A detective-sergeant was present when she called again, and she then admitted the prescription was for her own use. Defendant also wrote a letter, purporting to come from Edinburgh University, expressing regret that there had been difficulty about the prescription, and adding that it was to be used for painting in a case of throat trouble. A lady doctor gave evidence to the effect that the defendant was "run down," and the town clerk said the authorities did not press for a conviction. The defendant was bound over in her own recognisances for six months.

**Tooth-brush Contract.**—Mr. Justice Sankey had before him in the King's Bench Division, on December 6, an action by Cooper, Ewing & Co., Ltd., Ewing House, Chiswell Street, London, against Hamel & Horley, Ltd., London House, Crutched Friars, E.C. Plaintiffs claimed damages for alleged breach of contract to accept and pay for tooth-brushes. Plaintiffs' case was that under a contract, dated November 18, 1918, they sold to the defendants 6,050 gross of tooth-brushes to be shipped from Japan on the succeeding January to April, the terms being less 4½ per cent. cash against documents on arrival of the steamer, delivery at United Kingdom ports. A clause in the contract stated: "If through any cause arising from *force majeure* the contract cannot be fulfilled, same to be considered void." On May 10, 1916, a proclamation was issued prohibiting the importation of tooth-brushes, but it was permissible to import them under licence. This licence, which was in force when the contract was made, was later revoked, and the defendants then repudiated the contract. The market price of the goods fell considerably soon after the armistice. Plaintiffs claimed £17,382 damages against defendants for non-acceptance of 5,218 gross of tooth-brushes. The brushes, according to plaintiffs' contention, were now unsaleable. Mr. R. A. Wright, K.C., for defendants, submitted that the period of the contract ended in April. Even if defendants repudiated in the course of April, which was doubtful, it was clear there was no acceptance of the repudiation, and therefore the contract remained open. His Lordship reserved judgment.

**Alleged Infected Wig.**—Before the Lord Chief Justice and a special jury, in the King's Bench Division on December 5 and 6, a case was heard in which Mr. C. R. S. Hill claimed damages from Mr. William Clarkson, theatrical costumier, for breach of contract and implied warranty in the hire of a wig. Plaintiff alleged that as a result of wearing the wig at private theatricals he became infected with syphilis. Dr. J. E. R. McDonagh, F.R.C.S., said he had no doubt that plaintiff's infection, which was on the head, was syphilis, and he put it down to the wig because of the period that had elapsed since the wig was worn. Dr. Arthur Whitfield, F.R.C.P., and Dr. Jas. Ernest Lane gave evidence as to infection by syphilis. To the last witness the Lord Chief Justice said: I suppose certainly a diagnosis depends to some extent upon the moment the specialist is invited to make the diagnosis. Suppose you have not seen the earlier stages at all, and a young man comes to you with a syphilitic rash upon his body and a sore that looks like a primary sore. He gives you a story as to the date when he thinks that this sore appeared. Have you not at least these three elements of uncertainty: (1) What was the real time between the appearance of the sore and the appearance of the rash; (2) what was the real time between the moment of infection and the appearance of the sore; (3) how far can the accuracy of this gentleman

be depended upon? Witness replied that the whole question depends upon his powers of observation. For the defence evidence was produced that all wigs were cleaned by maceration in "spirit" for about half an hour, then submitted to a hydraulic extractor and afterwards dried in a hot-air chamber. After this evidence the jury expressed the view that the case need not proceed further, as they were satisfied that they could not find that plaintiff acquired syphilis from the wig in question. Judgment was accordingly entered for the defendant.

## Bankruptcy Reports

**Re Harry Herbert Spencer,** 384B Rotherhithe New Road, Bermondsey, chemist and druggist.—This debtor failed last August, and on November 28 he attended before Mr. Registrar Mellor at the London Bankruptcy Court for public examination upon accounts showing liabilities £372 against assets valued at £105. He stated that in September 1918, with £175 borrowed capital, he commenced as a chemist and druggist at 188 Acton Lane, Chiswick, and traded there until August 1921, when, owing to ill-health, he sold the business for £1,362, which was expended in meeting outstanding liabilities. In the following February he again went into business for himself, and traded at the above Bermondsey address until last June, when he agreed to sell the business to another person as nominee of "British Pharmacies, Limited" at the price of £260 in cash and shares. As no part of the consideration had been paid, witness in July re-took possession of the business and continued it until these bankruptcy proceedings were instituted by the petitioning creditors. Witness attributed his insolvency to the failure of the company to complete the purchase of his business, to protracted ill-health, and to the trading profits having been insufficient to meet his household and personal expenditure. The examination was concluded.

**Re Stanley Ward & Co.** (Stanley Francis Ward, trading as), 74 Great Tower Street, London, E.C., general produce merchant. The Official Receiver in this case (*C. & D.*, January 21, p. 62) has now issued a statement of affairs which discloses liabilities £135,868, of which £127,840 are returned as expected to rank, and estimated net assets £89,462. The chief assets are doubtful book debts £117,899, valued at £86,264. In his deficiency account the debtor claims to have possessed a surplus of £20,611 on January 1, 1921. He accounts for the loss of this amount and for the creation of his present deficiency of £38,378 as follows:—Goodwill written off, £500; depreciation of office fittings and effects and loss on car, £1,192; net loss in trading since January 1, 1921, £24,747; bad debts, £31,635; and household and personal expenditure, £915. The Official Receiver says in his opinion the bankrupt has greatly overestimated the realisable value of the "doubtful" debts. The bankrupt, shortly after lodging his statement of affairs in February last, obtained the leave of the Court to go abroad for the purpose (amongst other things) of negotiating on behalf of the trustees of his estate a settlement of claims amounting to £66,412 (estimated to realise £66,000) against three New York companies. The debtor attributed his insolvency and failure to the general slump in trade which began in or about April, 1920, and to the failure of buyers to take delivery of goods and loss on their subsequent forced realisation, owing either to their perishable nature or to pressure on the part of bankers, who held the documents; to large shipments of goods (chiefly cocoa powder) from America being of inferior quality to that contracted for, and to his customers, as a consequence, claiming damages or refusing to take delivery; and to his inability to recover very heavy claims for damages for breaches of contracts on the part of suppliers and purchasers of goods, particularly the former. In many instances, he added, the bankers had financed him and advanced money against documents. With regard to the doubtful book debts, he had now ascertained that £50,000 had gone absolutely. The examination was closed.

## New Companies and Company News

P.C. means Private Company and R.O. Registered Office

C. A. BROWNE (SOUTHCROFT), LTD. (P.C.)—Capital, £500. Objects : To carry on the business of chemists, druggists, drysalters, oil and colourmen, etc. R.O. : 270 Mitcham Lane, Streatham, London, S.W.

SHOTTS APOTHECARIES, LTD. (P.C.)—Capital, £500. Objects : To carry on the business of wholesale, retail and manufacturing chemists and druggists, etc. The first directors are : J. and Mrs. A. Laidlaw, 56 Station Road, Shotts ; M. McAlpine, Anvil Cottage, Russell Street, Wishaw, chemist. Solicitors : Brown & Sneddon, 58 West Regent Street, Glasgow.

SAM GIBSON, LTD. (P.C.)—Capital, £1,000. Objects : To take over the Eastern Apothecaries' Hall, 135 London Street, Glasgow, and to carry on business as chemists and druggists, patent medicine proprietors, stationers, etc. The first directors are : S. Gibson and N. Gibson, 135 London Street, Glasgow ; Agnes H. Gibson, 134 Bothwell Street, Glasgow. R.O. : 135 London Street, Glasgow.

W. DANIELS (SOUTHERN), LTD. (P.C.)—Capital, £3,000. Objects : To carry on the business of consulting, analytical, manufacturing, pharmaceutical, and general chemists, herbalists and seedsmen, drug merchants and dealers, opticians, etc. The first directors are : W. Daniels (managing director), 42 Haslemere Road, Southsea ; B. C. A. Tweedy, 27 Osborne Road, Southsea ; A. B. A. Frampton, "Florida," Mayfield Road, East Cowes, I.W. ; A. E. Gover, "Olive House," Eastfield Road, Southsea ; and A. G. Hayter, 2 Port Royal Place, Southsea. R.O. : 97 St. Thomas Street, Portsmouth.

TOTHILL, SHARP & CO. (1922), LTD., Tamarind Lane Fort, Bombay, has been formed in succession to the older company, which went into voluntary liquidation.

EVANS SONS LESCHER & WEBB, LTD.—The following members of the staff have been appointed as additional directors :—Mr. Charles Ernest Martin Andersen, Mr. William Charles Brinson, Mr. Thomas Charles Hewitt, F.C.I.S., Mr. Charles Edward Jermy Sendall, M.P.S., Mr. John Mortimer Tallantyre, Ph.C., and Mr. Joseph Walker Wright.

CASTNER-KELLNER ALKALI CO., LTD.—The report for the year ended September 30 last shows gross profit on trading account, dividends, etc., amounting to £258,819, and net profit, after allowing for the amount required for keeping up the works, plant and machinery and debenture interest, of £241,788, making with the balance brought in £255,494. Of this the interim dividend absorbed £80,000, leaving £175,494 available for distribution. The directors recommend payment of a final dividend of 12 per cent., making 20 per cent. for the year, leaving £55,494 carried forward. They consider the depreciation reserve of £737,500 is at the present time ample, and do not therefore propose to add to it on this occasion.

BRITISH CYANIDES CO., LTD.—The directors have issued a circular stating that the progress made since the annual meeting has realised anticipations. The view expressed by the directors in their last annual report to the effect that the problem of the fixation of atmospheric nitrogen will have been solved during the current financial year has been strengthened by recent work. A small profit has been made during the half-year, out of which the preference dividend is being paid, and forward contracts have been entered into which will provide increased profits during the current six months. The merchant business is developing well, and in the opinion of the directors the company has now definitely turned the corner and its prospects are greatly improved.

CHEMISTS' MUTUAL INSURANCE COMPANY, LTD.—The first statutory meeting of members was held at 19 Tavistock Square, London, W.C.1, on November 29, Mr. Thomas Hardy, J.P., in the chair. The memorandum and articles of association, with the secretary's report, were

approved, and the following chemists were appointed first directors of the company : Messrs. E. A. Atkins, F. W. Bates, R. F. Clarke, W. Forster, J. E. French, H. Gillegan, J. Hague, T. Hardy, F. Hindle, J. G. Jackson, L. Joseph, J. Keall, A. R. Keith, H. H. Marshall, H. J. Martin, N. E. Matthews, A. R. Melhuish, J. Milner, S. N. Pickard, C. W. Ridyard, P. F. Rowsell. Mr. G. A. Mallinson was appointed secretary and manager. Messrs. West & Drake, C.A., were appointed auditors, and at a subsequent meeting of directors, Mr. Hardy was appointed chairman of the directors. It was mentioned that insurances in fire, burglary, employers' liability, life, etc., would be undertaken, and that already considerable progress had been made in getting business. It was intimated that the company are not at present accepting any Irish business, but that Scottish business would be welcomed, and that every pharmacist in business could insure through the new company.

CHEMISTS' DEFENCE ASSOCIATION, LTD.—A meeting of the directors of the Chemists' Defence Association was held at 19 Tavistock Square, London, W.C., on November 29, Mr. Hardy presiding. A number of claims for damages were considered, and suitable action ordered in each case. Amongst these was a claim in respect to injury done to the teats of a young cow, whereby its value as a source of milk was destroyed. It was decided that in future balance sheets the current market values of stocks owned by the C.D.A. at the end of the year, instead of the cost price, as hitherto, be employed. Fifty-two new shares were issued to that number of new members. In addition, eight other new members took the place of former members retired or deceased, and were provided with transferred shares. An extraordinary general meeting was held the same day, the chief business being to amend Rule 1 so as to include "Third Party Risks" arising in or about members' retail premises. Hitherto, such accidents as customers falling into members' cellars through trap-doors or pavement flaps being left open, or injuries to pedestrians, etc., through being knocked down by collision with members' messengers on bicycles, have not been included, but they will all be part of the benefits of C.D.A. membership in future (without any extra subscription) up to the amounts for which the member may be covered. Resolutions embodying the above and to clarify certain other rules were passed unanimously. They were as follows :—

That the following addition to be made to Rule (1) :—To indemnity against liability for compensation for the death or bodily injury of any person not in the member's employment and not being one of his family or for the damage to the property of any such person, through any accident in or about the member's retail shop and premises for which the member shall be legally liable to such person or his or her representatives other than death or injury caused by any horse-drawn or power-driven vehicle belonging to or driven by the member or any employee of his and other than death or injury the Association's liability for which is excluded by any other of these rules or any other paragraph of this rule, and that authority be given to make any consequential alterations to the existing rules. That the Secretary be instructed to delete from the rules reference to obsolete Acts of Parliament and Government Orders. That Rule 17 be amended by the deletion of the second sentence commencing "Members" and ending "Subscription" and the insertion of the following sentence : A member shall not be entitled to defence in any prosecution or to indemnity against any claim if such prosecution or claim arises out of a sale, error or other occurrence which took place before the expiration of one calendar month from the date of his becoming a member in respect of the shop at which such sale, error or other occurrence took place, or, if his subscription shall have been in arrear in respect of that shop, before the expiration of one calendar month from the date of his renewing his subscription.

BAISS BROS. & CO., LTD.—A further meeting of the creditors of this company was held on December 4, at the offices of Edward Moore & Sons, C.A., Thames House, Queen Street Place, London, E.C. Mr. Ernest Norton, the liquidator in the voluntary liquidation of the company, occupied the chair, and said it would be remembered that at the recent statutory meeting of creditors, he intimated that negotiations were proceeding for the sale of the business. The creditors then authorised him to continue trading and carry on the negotiations.

He was now pleased to be able to report that he had received a definite offer for certain of the assets, and an agreement for their sale had been entered into, subject to the approval of the creditors. The solicitor to the liquidator explained that a conditional contract had been entered into between the liquidator and the buyers. The assets to be sold were the goodwill, plant, machinery, fixtures, fittings and stock. There was excepted from the sale all book debts and other debts due to the company as at November 1, and any goods sent out or outstanding on consignment accounts; also the valuable leasehold properties in Jewry Street and the leaseholds in Bermondsey, as well as other assets in the hands of a committee of the preference shareholders. The latter assets were being transferred to the liquidator. The purchasers would pay £1,500 for the goodwill in cash. The plant, fixtures, machinery and fittings at Bermondsey would be taken over at a valuation and cash paid for them in seven days. A valuer would be appointed by the liquidator and another by the purchasers, and if they could not agree an umpire would be consulted. Special provisions had been made with regard to the stock. The latter would be very difficult to dispose of, and it had been arranged that the purchasers should continue to carry on the business as from November 1, from which date they would pay all expenses and outgoings. The remaining staff would be employed, and the buyers would sell the stock, accounting to the liquidator for it monthly. It would be sold at the prices current in London. Any stock remaining over on May 1 would be sold at a price to be agreed upon. Up to the date mentioned the purchasers would remain in possession of the premises, which they would then hand over to the liquidator. The contract for the sale was subject to the approval of the majority of the creditors, and the shareholders in the company were not concerned in the liquidation. The liquidator was not obliged to bring the matter before the creditors, but preferred to do so. A creditor asked if any steps had been taken to obtain a better offer, and the liquidator replied in the negative. He pointed out that at a forced realisation certain of the assets would have to be sacrificed. The expenses of working the business would be borne by the purchasers as from November 1, and that was an eminently satisfactory arrangement. Since his appointment he had been able to reduce the expenses, but under existing conditions and the present state of trade he could not carry on the business with the results he would have liked. The reason why he did not invite other offers was that at the last meeting he was instructed to continue the negotiations he had then entered into. He had followed those instructions, but if the creditors did not approve of the offer it was open to anyone to make a larger offer. A creditor said he understood that certain assets were not included in the sale, and he inquired whether the claim for the refund of E.P.D. was being taken over by the purchasers. The liquidator : I have collected that. A creditor : What about the book debts? The liquidator : They are excluded from the sale. In the course of the discussion which ensued the opinion was expressed by several creditors that the liquidator ought to be congratulated on being able to submit such an excellent offer to the creditors. It was also pointed out that the business was not an easy one to dispose of as a going concern. The liquidator said he was strongly of the opinion that it was to the best interests of the creditors to accept the offer. All along he had been trying to sell as a going concern. A creditor inquired who the purchaser was, and the Chairman said the assets were being bought by a company which was about to be formed. On the motion of the principal creditors a resolution was unanimously passed in favour of the offer being accepted. The representative of the Clydesdale Bank said that they claimed to have a charge on the premises of the company in Bermondsey and Jewry Street, but, acting on counsel's advice, they were not pressing that charge, and the leases would be available for the general body of creditors. A creditor asked what dividend it was anticipated would be declared. The liquidator replied that it was difficult to say, and the distribution would largely depend upon the surplus he got from the securities in the hands of the fully-secured creditors. Those securities consisted of debts in South Africa, which were only subject to collection. The company had given about six months' credit. He was hoping the creditors would get about 10s. in the £.

## Retail Pharmacists' Union

A MEETING of the Executive Committee of the Retail Pharmacists' Union was held at 19 Tavistock Square, London, W.C., on November 28, Mr. T. Hardy presiding. There were also present : Messrs. E. A. Atkins, F. W. Bates, R. F. Clarke, Wm. Forster, J. E. French, F. Hindle, L. Joseph, J. G. Jackson, J. Keall, A. R. Keith, H. J. Martin, J. Milner, P. F. Rowsell, C. W. Ridyard, H. M. Tranmer, and A. E. Young. Among the matters dealt with were the following : Violation of verbal agreements (an association was advised not to rely in future on verbal promises); it was decided that steps should be taken to ascertain the possibility of bringing together the chemist members of Insurance Committees for mutual information and support. The position of the chemist in relation to prescriptions for special proprietary medicines was also considered, and the secretary was asked to take the matter up with the Ministry of Health. Recent developments with regard to the distribution of Glaxo, which was recently removed from the protected list of the Proprietary Articles Trade Association, were discussed. Sir William Glyn-Jones, secretary of the P.A.T.A., and Mr. Hugo Wolff, of Glaxo, attended and placed their views before the Committee. The Organisation Committee's recommendation was adopted that the six electoral groups in England and Wales be each divided into two. A scheme of amalgamation with the Scottish Federation is being proceeded with. A committee was appointed to see if united action could be taken with big companies regarding the sale of unprofitable proprietary articles. An agreement with the manufacturers of milk foods regarding the sale of foods in plain packets to Welfare Centres could not be arrived at owing to the objections of one manufacturer.

**Leicester.**—At a meeting of the Leicester and Leicestershire branch of the R.P.U., on November 29, Mr. J. W. Catlow, President of the Sales Managers' Association of Great Britain, gave a lecture entitled *Persuading the Public*. Business, he said, consists of three main divisions—production, selling, recording. To sell successfully goods must be meritorious, but the long list of businesses having meritorious goods to sell which have failed to achieve success should convince anyone that the handling of the product after it is made plays the largest part in the success or failure. Too many salesmen are content to continue on the old lines of selling, and are obtaining, as a result, restricted profits and a totally inadequate return. Hence the need for bringing the subject of salesmanship down to a system of scientific analysis and synthesis. Scientific salesmanship implies that certain well-defined principles will produce well-known results. The "Law of Sale," which never varies and never changes its order, is : (1) Favourable attention to what is offered for sale. (2) Interest in what is offered for sale. (3) Desire to reap the advantages to be had by possession of the goods offered. (4) Action or resolve to secure these advantages. These indicate the key to the whole question of selling, and the salesman's business is so to plan his methods as to utilise these phases to the best advantage. His tactics are his selling talks or points, the arrangement of which will vary, as it will be necessary to decide whether goods are luxuries or necessities, and as to the type of customer, whether wealthy, moderate and poor. There are about sixteen types of customers : The undecided, changeable, distrustful, sanguine, talkative, indifferent, silent, prejudiced, nervous, deliberate, tired, economical, delightful, children, men, etc., all of which can be satisfied if the study of each one is undertaken and the salesman concentrates on his purpose. Knowledge inspires confidence ; therefore, know the goods is a first sound principle. Show goods of medium price or quality first, then two or three other grades, each slightly higher in price ; the customer's attitude will then indicate whether it is advisable to show cheaper lines. Where possible, let the customer handle the goods. The first statement about the goods should be the best reason why customers ought to buy them. Messrs. Blockley, Goders, Spiers and Marfitt asked various questions, which Mr. Catlow answered.

## Pharmaceutical Society Of Great Britain Council Meeting

A MEETING of the Council was held at 16 Bloomsbury Square, London, W.C., on December 6, Mr. E. T. Neathercoat (President) in the Chair. The absent members were Messrs. Campkin, Hines, Wolff, and Young.

The President explained that Mr. Hines was unable to be present owing to a slight injury to his foot which prevented him from making the journey to London, and expressed the hope that Mr. Hines would soon be able to walk again. Mr. Campkin was kept away from the Council-meeting through private reasons, while the state of Mr. Young's health prevented his attendance.

### DEATHS.

THE PRESIDENT made appropriate reference to the deaths of Mr. Charles Swinn, Manchester, and Professor Sir Isaac Balfour, Edinburgh. Mr. Swinn, said the President, was divisional secretary to the Society for many years, and also acted as the superintendent of written examinations held by the Society in Manchester during recent years. Pharmacists, and particularly members of the Society, had lost a good friend by the passing of Mr. Swinn. Sir Isaac Balfour was elected an honorary member of the Society in 1896, his father having been elected an honorary member in 1872. From 1897 to 1900 Sir Isaac was an examiner in botany on the board of the Society for Scotland, and took a great interest in the work of the Society in Scotland. On more than one occasion he delivered much-appreciated addresses to the memoirs of the Society in Edinburgh, and he had had a long and distinguished scientific career, during which he had used his pronounced attainments to the full.

On the proposition of the President, it was decided to send to the relatives an expression of the Council's deep regret and sympathy.

The President intimated that there were no questions, and added he understood there were no elections.

### RESTORATIONS

Six persons were restored to the Register, and the registrar reported that there had been eighty-seven registrations of apprentices as students since the last meeting.

The appointment of superintendents and deputy-superintendents of written examinations was down on the agenda, but the President said that in view of the death of Mr. Swinn he proposed to defer the matter to the next meeting of the Council. This course was agreed to.

### CORRESPONDENCE

A letter was read from the Association of British Chemical Manufacturers, stating that the organisation had been asked, and had consented, to take part in the British Empire Exhibition to be held at Wembley in 1924. The Association had been asked to undertake the organisation of the sections devoted to chemistry, and suggested that the Council should appoint two representatives to serve on the Committee to decide on the lines on which they should work. In a subsequent letter, the secretary of the Association stated that it had been decided to hold a meeting of the Committee on December 14. The President and Mr. Marns were appointed to represent the Council on the Committee.

A further letter was read from Professor Perrot stating that he would never forget the warm welcome extended to him in London in October when he attended the opening of the School of Pharmacy in order to receive the Hanbury medal.

### EDUCATION COMMITTEE

The report of this Committee included the following passages :—

The Committee submitted to the members of the boards of examiners, and to the responsible teachers in schools approved for the purpose of training for our examination, a draft syllabus. Replies containing suggestions on almost every branch of the subject have been received—about 70 in all. In addition, the Committee have had the benefit of the observations of the North

British Branch. The Committee have, in addition to their ordinary meetings, held special meetings for the purpose of considering the syllabus and methods of examination for the Qualifying examination. As a result they make the following recommendations :—

1. That the standard of the Preliminary examination should be raised. The following is recommended as the scope of the examination and list of certificates which should be accepted. [Details were given in the report.]

2. That the suggestions contained in the following report of the sub-committee for the syllabus for the Qualifying examination be approved. [The report was appended.]

3. That the minimum curriculum to be imposed should be 1,140 hours, without any stipulation as to the period over which these hours are to be spread.

4. That Part I. be conducted by means of written papers and practical work—provision may be made for the written papers to be done in provincial centres, but the practical work to be done at Bloomsbury Square or Edinburgh.

5. That candidates be not permitted to take Parts I. and II. at the same examination.

6. That Part II. be conducted by means of written papers, practical work and oral, and shall consist of a two-days' examination—one day to be devoted to written work and oral and one day to practical work.

7. That separate reports be made by the respective examiners on (a) the candidate's written work, (b) the candidate's practical work, and (c) the candidate's oral work; that the reports shall set out the details of the marks in each subject; and that these reports be considered by a committee of the board, upon whose report the candidate shall be rejected, passed, or referred in the respective subject.

8. That the whole of the Part II. examination, including the written work, be conducted as hitherto in London or Edinburgh.

The Committee reported that on October 31 it was decided to accord recognition in respect of Part I. to the following institutions :—Folkestone Technical Institute, for Chemistry and Physics; Shrewsbury Borough Technical School, for Chemistry and Physics; Storey Institute, Lancaster, for Botany; Framlingham College, for Chemistry and Physics; Colchester Technical College, for Botany; and Redditch Secondary School, for Chemistry, Physics and Botany.

The Committee also considered a remit from the Council in regard to the appointment of a representative on the Court of Governors of Bristol University in place of Mr. Rowsell, and it was decided to ask the President to act as representative on the Court of Governors.

THE PRESIDENT said before Mr. White spoke on the subject he wished to say that the matter had been before the Council on the previous night, and had been discussed at length and eventually adopted. In order that an announcement might be made at that meeting Mr. White would move the acceptance of the report.

Mr. WHITE said the Committee would like to have an opportunity of extending the brief explanations in the report. The Committee believed that the report would be the basis of regulations framed by the Council, and if at any time it was deemed advisable the Council would be able to alter such regulations by simple resolution. The power left with the Council was of a very elastic character. It was hoped that the new arrangements would produce much more definite results than those which had been seen hitherto. The Committee thought that the conduct of future examinations would be more satisfactory to the students, who before they presented themselves would have received the necessary amount of training to go through the curriculum. With regard to the Preliminary, the Committee felt that the time was ripe for improvement. In the first place the standard of secondary and higher educational facilities all over the country had risen considerably, and it was thought the time had come when candidates for pharmacy should have at least a higher form of preliminary examination. It was desired that there should be an improvement in pharmacy itself, for it would be a disastrous thing if candidates should come into the profession from

a lower social stratum than he and others thought they ought to come from. He recognised, of course, that in these democratic days they could not say too much about social status, but they could not afford to allow an inferior class to come into pharmacy when a better class of student was available. Section 4 dealt with pure science, and the Committee recommended that the written papers should be taken locally, but the area had not yet been defined. With regard to Section 5 the Committee thought it was better that the two parts should be taken separately, with a suitable interval between them. It was also further proposed that the practical work in future should be supplemented by written papers. In the past the examinations had been entirely practical and oral, and the Society was the only body which relied on examinations of that kind. Although he was bound to say that the present examinations worked well, he thought with the Committee that the written papers would ensure the candidates having a wider opportunity of exhibiting their knowledge. Thus it was intended to maintain the oral examinations. Part 7 was really the newest suggestion in relation to the whole subject, for it was now proposed that reports of the examiners should be submitted to a small committee of the Board of Examiners. In that way the Committee thought the student would have a better chance, because under the present system a candidate had to be accepted or rejected by a single examiner. The Committee were of opinion that the proposed alteration of the system would tend to prevent the repetition of the allegations of inconsistency which had sometimes been made. At any rate, the student would be given every chance in the examinations, and it must not be forgotten that an examiner often found himself in great difficulty through having the whole responsibility put upon him in an examination. In Section 8 there was a short clause with regard to Part II. examinations, and in justice to his colleagues he had to say that there was a difference of opinion with regard to this matter. He felt that they could have very well done with Part II. written papers as they had done with Part I.

Mr. PECK, as one of the small sub-committee appointed to consider various suggestions submitted by the examiners and teachers both in Scotland and Wales, said he was glad to have an opportunity of thanking them for the very valuable material which they had presented. It was not possible to incorporate all their suggestions, and in fact these frequently cancelled one another. But the Committee did take pains, and an honest attempt had been made to embody as many of these suggestions as possible in the syllabus, to bring it into line with arrangements in some of the schools, and also to meet the criticism he had sometimes heard justly levelled against the present system of examinations. It frequently happened that examiners had been placed in a position of doubt, but now they would feel that the matter would be further considered by the Committee, who would take their reports into consideration. They would thus be more assured in their own minds.

Mr. MELHUISH, as a member of the Education Committee, paid a tribute to the chairman, but for whom they would not have arrived at a unanimous decision. It seemed to him that in their lengthy discussions the main idea had been, if possible, to get the utmost fairness ensured to the student in the first place, and, secondly, to bring up their examinations to the requirements of modern ideas and fit them in with the better facilities now available at the technical schools throughout the country. The new proposals would mean the utmost fairness to the candidate, and he thought the Committee would feel they had not done their work in vain. There were a great many details on which the Committee had differed, but on the whole he thought the examinations would not prove to have been made any more difficult for the candidate. It was a case of the syllabus having been re-shuffled rather than anything else. Some things had been taken out of the first part and put into the second part. If one considered that for some of the practical part books would now be available for the use of the candidate it would be apparent that there would not be such a severe strain on the

student's memory, and consequently the examination would not be so severe. He looked forward to a very much greater and improved pass list than they had had hitherto.

Mr. PARRY also testified to the manner in which the chairman of the Education Committee had carried out his task. He thought he might claim to be the oldest member associated with the work of the Education Committee continuously, and he had never before at the Council-table seen difficult work conducted in quite the same way, for the majority of the Committee had given way to the minority on important points. He thought it was to the credit of the majority that they had arrived at that conclusion. He had never been satisfied with the examination system in the past, and thought perhaps a joint report by an independent board of examiners might be the ideal way. That was impracticable at the moment, but perhaps the time might come when it would be adopted. Great credit was due to Messrs. White, Peck and Sargeant for preparing the groundwork on which the Committee had had to decide finally.

Mr. KETTLE said he was not a member of the Education Committee, but he wished to congratulate the Committee on the issue of the new syllabus. He thought himself he would not say the examination was either more severe or easier, but under the new conditions it would be much fairer to the candidate because it would give him better opportunities.

Mr. ROWSELL spoke highly of Mr. White's services. He heartily approved of the new scheme, and said he thought it would create more interest among the students, who would be induced to take greater interest in their work and qualify with a feeling that they had covered the ground put before them.

Mr. MARNS also spoke highly of the syllabus, observing that it contained matters in which he had been long interested, and for which he had to a certain extent been fighting. He was specially pleased to see that the stigma which had been alleged against the examinations at times would now be removed. With regard to the Preliminary, he was sorry the Committee had not seen fit to make it matriculation standard, for some of the other examinations were of little value, and the candidates would have to go back to their scholastic work in order to get their matriculation. If the Committee had insisted on the latter at the start it would have been fairer.

Mr. ANTCLIFFE did not like the idea of the impression being given that the examinations had not been all they should have been in the past. Many students who had failed had admitted it was their own fault, and he thought the examinations had been quite fair. He hoped it would not be taken that the new scheme had been adopted because of something wrong with the examinations in the past.

Mr. WHITE said it was very difficult to say whether the examinations in future would be more severe or easier. But at any rate he hoped that the Council would be able to control them and to know what the standard actually was. There had not been any question of unfairness, but rather difficulties of administration.

The PRESIDENT observed that the scheme was the result of a tremendous amount of work, and he felt certain it could be sent to the country with every confidence.

The report was then adopted.

#### FINANCE COMMITTEE

The financial statement is summarised as follows:—Receipts since the last meeting, including a balance of £13 3s. 9d., amounted to £3,705 1s. 4d., comprising the following items:—Subscriptions, £34 2s. 6d.; examination-fees, £476 18s.; registration-fees, £235 4s.; restoration-fees and certificates of qualification, £2 9s.; penalties, £138 15s.; "Pharmaceutical Journal" publishing dept., £2,200; "Pharmaceutical Journal" subscriptions, £3 13s. 6d.; Pharmaceutical press publications, £1 12s. 1d.; Pharmaceutical Pocket Book, £6 15s. 2d.; School of Pharmacy, £34 15s.; Register of Chemists and Druggists, £4 19s.; B.P. Codex Supplement, £9 5s.; interest on investments, £242 18s. 4d.; sundries, 11s.; transfer from deposit account, £300.

Payments ordered at the last meeting amounted to

£3,691 18s. 1d., leaving a balance of £13 3s. 3d. The other balances were:—Benevolent Fund (current account), £67 5s.; Benevolent Fund (donation account), £16 15s. 5d.; War Auxiliary Benevolent Fund, £411 8s. 1d.; Orphan Fund, £32 7s. 9d. The report recommended that accounts amounting to £4,759 13s. 7d. be paid, and that the action of the secretary in making payments amounting to £679 13s. 7d. be approved.

There was a further recommendation that £8,000 from the general fund should be invested, half in 5 per cent. War Loan and the other half in Funding Loan.

The TREASURER said this proposal showed that the finances of the Society were in a satisfactory state.

Mr. ROWSELL, referring to a recommendation that a subscription of ten guineas be paid to the Royal Botanical Society, said he took it that the Society got specimens for their examinations when they were needed, and that the students were able to go to the Botanical Gardens.

The PRESIDENT: Yes, that is so. The students have to get a permit from Professor Greenish.

The report was adopted.

#### BENEVOLENT FUND COMMITTEE

The report of this Committee showed that nine applications had been considered, and grants, varying from £20 to £30, had been made. The suggestion of the Vice-President that a Committee should consider the possibility of the provision of houses in the country or elsewhere, where elder members of the Society or their widows who were in straitened circumstances and had nowhere else to go could find a refuge, had been discussed, and the secretary was directed to make inquiries and report on a subsequent occasion.

The report was adopted.

#### WAR AUXILIARY BENEVOLENT FUND

This Committee reported having dealt with fifteen applications and made grants of from £5 to £60.

The report was adopted.

#### MISS BUCHANAN'S REPORT

The PRESIDENT said that Miss Buchanan's report of her visit to Canada had been circulated to the members—(see p. 807)—and he emphasised the importance of the question of reciprocity between British and Canadian pharmacists.

Miss BUCHANAN, commenting on the report, pointed out that she travelled something like 7,000 miles in the Dominion, and saw people associated with pharmacy from one end of Canada to the other. The only place she was unable to visit was Prince Edward Island. She had found that it was much easier to protect the titles "pharmacy" and "pharmacist" in a new country than it was here, but it was almost impossible to get an idea of the whole of the conditions obtaining in Canada, where provinces differed so greatly from each other. Canadian pharmacists, however, agreed that equivalent training was essential to any scheme of reciprocity. She had discussed the question with pharmacists in the Dominion, and would be able to give the Council, in committee, the information she had obtained. They would want to know what Canadian qualifications were before they could come to any decision.

The PRESIDENT complimented Miss Buchanan on the thoroughness which characterised the report, and suggested that it should be referred to the Education Committee. The subject was a very big one, and would have to be carefully considered by the Council. He also expressed appreciation of the Canadian pharmacists and others who had placed such valuable information at Miss Buchanan's disposal.

The report was cordially accepted.

This concluded the public business.

#### ELECTION OF ANNUITANTS

The election of nine annuitants of the Society took place on December 6, the President in the chair. There was no contest. The list of names was moved by the President, and seconded by Miss Buchanan, and the customary vote of thanks closed the proceedings. The persons elected are as follows:—Margaret Atkinson, Ellen Davies, Elizabeth Eastman, C. J. Fox, Rose E. Francis, T. J. Hasselby, J. Price, Elizabeth Rose, and Mary M. Swan.

#### Branch Meetings

**Chesterfield.**—At a well-attended meeting of pharmacists in the Chesterfield and Mansfield areas, on November 29, Mr. Houston (Chesterfield) in the chair, the Vice-President of the Society, Mr. Pilkington Sargeant, gave an address. He pointed out how this organisation of the Society's members had become necessary both for the public and for the pharmacist. He discussed the question of education, particularly in regard to preliminary knowledge, and in conclusion said pharmacy had been spoken of as the handmaiden of medicine, but one thing the branch must keep in mind was that pharmacy was not the handmaiden of anyone. The chairman, thanking Mr. Sargeant for putting the case so clearly, invited questions. Mr. Deakin agreed that the need of the craft at the present time is higher education. It was a step in the wrong direction when Latin was eliminated from the Preliminary examinations as a compulsory subject. Mr. Sargeant, in reply, said that so many schools now did not include Latin as a subject of their curriculum, the Society had to come to the conclusion that this was keeping out of the craft many boys who were in all other respects well fitted to enter. It was then unanimously agreed that a branch of the Society should be formed, to be called "The Chesterfield and Mansfield Branch of the Pharmaceutical Society." The officers elected were: President, Mr. J. A. Pegg; Vice-President, Mr. Twelves; Secretary, Mr. W. O. Pegg; and Treasurer, Mr. B. Adams. An executive committee of members from each area was also elected, including one qualified assistant from each area, while Mr. Pegg and Mr. Greaves were appointed as Conference delegates.

**Derby.**—A meeting of the Derby and District chemists was held on November 29, Mr. S. Taylor in the chair. Mr. H. Antcliffe, a member of the Pharmaceutical Council, dealt with various pharmaceutical topics, after which he outlined the Society's scheme of organisation, and answered a number of questions. On the motion of the chairman it was unanimously decided to form a Derby and District branch of the Pharmaceutical Society, and the following officers were elected:—President, Mr. S. Taylor, Ph.C. (Derby); Secretary, Mr. H. G. Toy (Derby); Treasurer, Mr. C. Daykin Turner (Derby); Committee, Messrs. W. S. Wain (Ripley), W. Lean (Burton), J. Osborne (Ashbourne), E. E. Bowler (Belper), V. Wilson (Derby), and W. Elmitt (Derby). On the motion of the President, a hearty vote of thanks was accorded to Mr. Antcliffe.

**Portsmouth.**—A meeting of members of the Pharmaceutical Society in the Portsmouth area was convened on November 29 at the County Club, at which Mr. A. B. Sparrow presided and introduced Mr. F. E. Bilson, who outlined the official scheme of organisation. He said the scope of a local branch could hardly be appreciated until they had been in existence for a year or two. Its duties might be put under three heads: Educational, Scientific, and Social, and he dealt with each of these points in detail. A very full and frank discussion followed Mr. Bilson's discourse. Mr. C. Upson (Gosport) thought this new organisation would do more harm than good, but was eventually brought round to a milder view. Mr. Postlethwaite complained of the multiplicity of committees, and expressed apprehension at the Portsmouth Association being merged in the Pharmaceutical Society. He would oppose any interference or control in that way. Mr. Atterbury was equally plain on the point, but allowed that some advantage might accrue in places where there were no flourishing associations. The resolution to form a branch was made by Mr. T. O. Barlow and seconded by Mr. Hemming. The meeting objected to take as read certain rules "as published in January 1922," and requested their revision, after which the motion was carried. The present officers and committee of the Association were elected to parallel positions on the new branch, with the additional committee: Messrs. C. Upson, W. J. Lewis, E. H. Smith (Gosport), C. H. Baker (Cosham), and C. S. Davies (Havant). The chairman and vice-chairman, Messrs. A. B. Sparrow and W. R. Atterbury, were elected delegates to the Conference. Mr. Bilson was thanked for his visit.

## Canadian Qualifications

**Abstract of a report presented to the Council of the Pharmaceutical Society of Great Britain, on December 6, by Miss M. E. Buchanan.**

AFTER a preliminary summary of the contents of the report, much of which has been obtained from first-hand conversations with the Canadian authorities concerned, the author gives the following list of addresses of Canadian pharmaceutical associations (registering bodies), with their respective secretaries or registrars:—

*Nova Scotia Pharmaceutical Society.*—G. A. Burbidge, Halifax, N.S.

*New Brunswick Pharmaceutical Association.*—W. R. Rodd, Moncton, N.B.

*Prince Edward Island Pharmaceutical Society.*—W. J. Brown, Charlottetown, P.E.I.

*Quebec Pharmaceutical Association.*—Henri J. Pilon, 294, Rue Ste. Catherine Est, Montreal.

*Ontario College of Pharmacy.*—W. B. Graham, 44, Gerrard Street East, Toronto.

*Manitoba Pharmaceutical Association.*—W. D. Macdougall, 33 Main Street, Winnipeg.

*Saskatchewan Pharmaceutical Association.*—Theo. Yates, Regina.

*Alberta Pharmaceutical Association.*—John H. Lines, 301-305 Agency Buildings, Edmonton.

*The Pharmaceutical Association of British Columbia.*—Joseph H. Emery, 589 Johnson Street, Victoria.

*The Canadian Pharmaceutical Association.*—F. A. Jacobs, 189 Church Street (Room 305), Toronto.

The remainder of the report, omitting the author's itinerary, is as follows:—

### Preliminary Remarks

There is no one pharmaceutical body in the Dominion which can examine or register for the whole of Canada. Of the nine Provinces each has its own Pharmaceutical Association (similar to our Society), each registers its own men, some examine them for qualification, others arrange for those whose apprenticeship is concluded to take their curriculum and examination at the University of the Province, and then register those who have satisfied the University examiners.

In the greater number of the Provinces a curriculum is compulsory, and a table is appended showing the length and subjects of same, and also the curriculum necessary for a University degree, where such is obtainable.

The nine Provinces are as follows (east to west):—

1, 2, 3. Nova Scotia, New Brunswick, and Prince Edward Island. The two former unite in the upkeep of the Maritime College of Pharmacy, at Halifax, N.S., affiliated to Dalhousie University. The associations conduct their own examinations.

4, 5. Quebec and Ontario, formerly called Lower and Upper Canada, respectively; and the former very largely French. These are the two most populated Provinces of the Dominion, with pharmaceutical arrangements and regulations not unlike our own. Each has its own examining board. Quebec accepts curricula at McGill University and other approved colleges; Ontario has its own teaching college, from which qualified persons, who have also matriculated, can pass on at once to obtain a degree in pharmacy at Toronto University.

6, 7 and 8. "The Prairie Provinces," i.e., Manitoba, Saskatchewan, and Alberta.—These each utilise the Universities of their respective Provinces (respectively at Winnipeg, Man.; Saskatoon, Sask.; and Edmonton, Alta.) for curricula and examination, and are only registering bodies.

9. British Columbia, formerly a Crown colony, and the last Province to be incorporated into the Dominion of Canada, has only a private school of pharmacy, in Vancouver, and candidates attend pharmaceutical colleges either in U.S.A. or in one of the other Provinces of the Dominion, in preparation for the Qualifying examination, which is conducted by examiners selected by the B.C. Association.

In addition to the associations of the Dominion Provinces, there is a Canadian Pharmaceutical Association, which is an affiliation of nearly all the provincial associations. It is supported by a capitation fee on all their members, and it deals with matters of Dominion interest, such as the publication of a Canadian formulary (formerly published by the Ontario Association), and deals with the Ottawa Government on affairs which concern all the Provinces, such as regulation of sale of narcotic drugs, the use of alcohol by pharmacists, etc.

This All-Canada Association holds an annual conference each year in some different city of the Dominion, and has for one of its avowed objects to pave the way to a Federal qualification, which the medical profession has already obtained. To this end they have placed on record that:—

1. University matriculation should be adopted as the ordinary entrance examination.

2. The college course should cover not less than two years, and at least 1,000 hours in pharmacy, chemistry, *materia medica*, and botany; the individual schools or colleges being free to add whatever subjects they think most suitable to their requirements.

In connection with (2) the existing state of affairs is that—

The Provinces of Prince Edward Island and British Columbia have as yet no recognised schools of pharmacy and no enforced curriculum. Ontario is shortly dividing its one-year course into two years, and much enlarging their College at Toronto to accommodate the students over two sessions.

Nova Scotia has a scheme for extension of curriculum in 1924, and New Brunswick, which sends its students to Halifax, N.S., to train with those of Nova Scotia, is stiffening up its standard to some extent. Quebec insists upon a "medico-pharmacal" curriculum at one of the Universities of the Province, and Manitoba, Saskatchewan and Alberta require their students to attend the University of the Province.

The examinations are written, practical, and *viva-voce* (except in British Columbia, Prince Edward Island and New Brunswick). The *viva-voce* is chiefly to elucidate points in the papers.

The Qualifying examination is held once only in the year, except in the Province of Quebec, where the examinations are held alternately in Quebec and Montreal, at six-monthly intervals.

There is no higher pharmaceutical examination than the one for qualification or Licence, except where a degree can be obtained; but in several Provinces there is an examination for assistants or certified clerks, and in Quebec, at any rate, this is called the Minor or Primary examination, whilst that for the Licence is called the Major.

In Ontario it is only necessary for matriculated students (at the University of Toronto) who have passed the Qualifying examination with the Ontario College of Pharmacy to sit for a written examination held by the University (immediately after each class has qualified) in order to obtain the Degree of Ph.B. The Ontario College of Pharmacy is affiliated with the University of Toronto.

### Grades and Titles in Pharmacy, together with Time Taken

#### NOVA SCOTIA.

1. *Preliminary.*—Matriculation of certain Universities.
2. *Certified Clerk.*—Minimum one year in retail, and special course at college and examination. Age 18.
3. *Pharmaceutical Chemist.*—Age 21. Three years in retail, two of which shall have served as certified clerk. Examination in two parts, one at end of each of two college years, called respectively "Minor" and "Major."
4. *Bachelor of Pharmacy.*—A further year's work on theoretical and practical physics; theoretical and practical chemistry; botany and pharmacognosy; theoretical and practical bacteriology; *materia medica* and therapeutics; physiology and toxicology; pharmaceutical ethics and economics.

#### NEW BRUNSWICK.

Similar to above. All details not settled after 1923.

## ALBERTA.

1. *Preliminary*.—Matriculation; but Grade X of Department of Education still accepted. *Certified Apprentice*.

2. *Certified Clerk*.—Three years as certified apprentice. Age 18. Examination in certain subjects.

3. *Pharmaceutical Chemist*.—Three years as certified apprentice. Two years' curriculum at University, or with degree of Bachelor of Science in Pharmacy and twelve months' experience in a pharmacy during the two senior years of his degree course.

4. *B.Sc. Pharm.*.—Must have matriculated. No apprenticeship necessary. Course four years. Does not entitle to registration as pharmaceutical chemist unless as above.\*

## BRITISH COLUMBIA.

1. *Preliminary*.—Two years at High School, and examination (of the school) in arithmetic, algebra, English, Canadian history, grammar and Latin; and becomes a *Certified Apprentice*.

2. *Certified Clerk*.—Two years as certified apprentice. Then examination in dispensing, prescriptions, pharmacy, chemistry, materia medica, called the "Minor."

3. *Licentiate in Pharmacy*.—Four years as certified apprentice, or two as certified clerk. Examination, the "Major," in dispensing, chemistry, pharmacy, botany, materia medica and prescriptions. No practical examination.

TABLE SHOWING APPRENTICESHIP CURRICULUM TO QUALIFICATION OR REGISTRATION, AND TO DEGREE, IF ANY

Province	Entrance Examination	Apprenticeship	Curriculum for Qualification and Name of College	Degree Course
1. Prince Edward Island	—	—	—	—
2. Nova Scotia	Grade X., with Latin	Four years, including college	Maritime College of Pharmacy, affiliated with Dalhousie University	Phm. B.
3. New Brunswick	After January, 1923, will require Matriculation in Arts and Sciences	—	At present 1 year—1,168 hours. After 1923, 2 years	2 years—1,150 hours.
4. Quebec .. ..	Special examination by Q. Pharmaceutical Association, instead of Matriculation	Four years, including college. If any part spent in hospital or in wholesale laboratory, it must be under a Licentiate in Pharmacy and at least 12 months' whole time in a retail pharmacy (8 hours daily)	McGill University, and University of Montreal. Part time, concurrent with apprenticeship. 660 hours, or one year devoted exclusively to college. No women admitted into profession	B. Phm. No additional course D. Phm. Further laboratory work and a thesis
5. Ontario .. ..	School-leaving certificate of Ontario Province, including physics, or Matriculation	Four years, of which three months is allowed as set-off for 1st term of college session	Ontario College of Pharmacy (own school) (Toronto) Affiliated with Toronto University 1 year of 36 weeks—970 hours. 2 years in 1924	Phm. B. (Toronto). No extra course. A written exam. only, written by qualified and matriculated persons.
6. Manitoba .. ..	Matriculation in Arts and Sciences	Four years, including college. After two years can take Minor, be reg. as certified clerk, qualifying exam. and Major	University of Manitoba (Winnipeg) 2 years, of 30 weeks each, i.e. 1,445 hours	B. Sc. 4 years' college course
7. Saskatchewan ..	Grade X. Certificate	Four years, including college, or 3½ minimum plus college	University of Saskatchewan (Saskatoon) 1 year of 30 weeks. 2 years after 1923	B.Sc. P. 4 years' college course. Apprenticeship can be taken subsequently and reduced in length
8. Alberta .. ..	Matriculation in Arts and Sciences, or a minimum of Standard X.	Three years and college course beyond if for licence only Two years and college course if Degree course taken	University of Alberta (Edmonton) 2 years of 30 weeks each, i.e. 1,365 hours	B. Sc. 4 years' college course.
9. British Columbia ..	Two years at a high school and exam. in arithmetic, algebra, English, Canadian, history, grammar and Latin	Two years before sitting for "Minor," i.e., certified clerk. Two years more for Licence exam. or "Major"	Private college in Vancouver, B.C.	

HOURS (APPROXIMATE) WHICH ARE DEVOTED TO CHIEF SUBJECTS OF THE CURRICULUM FOR THE LICENCE EXAMINATION

Province	Botany	Inorganic Chemistry	Organic Chemistry	Pharmaceutical Latin and Arithmetic	Physics	Physiology and Bio-Chemistry	Toxicology	Pharmacy	Materia Medica
Nova Scotia and New Brunswick	Lect. 70 Prac. 122	Lect. 64 Prac. 64	Lect. 96 Prac. —	Lect. 32 time not stated	Lect. 60 —	Lect. 25 Prac. —	Lect. 25 —	Lect. 128 Prac. 320	Lect. 160
Quebec .. ..	25	—	100 100	50 50	60	—	—	60 150	120
Ontario .. ..	60 66	102 132	30	45	15 10*	16 —	8	178 220	80
Manitoba .. ..	60 60	135 180	45	90	90 60	15 —	5	100 270	65 130
Saskatchewan ..	25	90 180	50	50	—	—	6	90 180	60
Alberta .. ..	60 90	90 180	90	—	60	90 90	90	120 180	120

N.B.—\*1. In Ontario, Elementary Physics must be taken in Preliminary Examination. 2. In addition to above chief subjects, some Provinces have courses in Mineralogy, zoology, first-aid, physiology, commercial pharmacy, etc., etc.

## QUEBEC.

1. *Preliminary*.—Questions set by examiners belonging to Quebec Association, English and French.
2. *Assistant Pharmacist*.—Three years as student under doctor or duly registered druggist. Examination in physics, chemistry, practical pharmacy ("primary").
3. *Licentiate of Pharmacy*.—Same subjects in more advanced form, with practical chemistry and botany and pharmacy in addition. The examinations for Assistant and Licenciate are also known as "Minor" and "Major."
4. *B.Pm.*.—No additional course.
5. *D.Pm.*.—Thesis and practical work required.

## ONTARIO.

1. *Preliminary*.—Minimum is Junior Leaving Certificate. In 1924 matriculation only will be recognised. Apprentices must be "recorded" before apprenticeship can count.
2. *Pharmaceutical Chemist*.—Four years in business. Junior course at college three months, to count as three months of apprenticeship. Senior course six months, not to count. In 1924: College course two years. Examination (practical, written and oral) in physics, toxicology, pharmacy, chemistry, dispensing, prescription reading, biology and microscopy, Latin, *materia medica*, first-aid, bacteriology. In 1892 the Ontario College of Pharmacy was affiliated with University of Toronto, and

3. *Phm.B.* may be obtained by persons who have matriculated and have attended full courses of lectures at the College, and who have passed the examinations of the College and are registered with them as Pharmaceutical Chemists.

## MANITOBA.

1. *Certified Apprentice*.—Matriculation.
2. *Certified Clerk*.—After two years' apprenticeship and passing of "Minor" examination. Age 18.
3. *Licentiate Pharmaceutical Chemist*.—Two further years' apprenticeship, or two as certified clerk. Examination (written, practical and oral) in physics, botany, chemistry, Latin and prescription reading, physiology and biochemistry, toxicology, pharmacy and dispensing and *materia medica*. Two years' course.

4. *B.Sc.*.—Four years' degree course in science (pharm.).

## SASKATCHEWAN.

1. *Preliminary*.—Junior High School course in English, history, geography, arithmetic, book-keeping and Latin. Apprenticeship four years, of which six months' abatement allowed for college course.

2. *Licentiate in Pharmacy*.—After 1923: Curriculum divided over two years. Examination (written, practical and oral) in Latin, botany, *materia medica*, chemistry, pharmacy, physical training, bacteriology, dispensing and pharmaceuticals.

3. *B.S.P.* (Bachelor of Science, Pharmacy).—Must have matriculated in Latin, English, arithmetic, algebra, geometry, history, chemistry and either one of another foreign language, or physics or biology. Degree course four years. May take this course without having been apprenticed, and subsequent apprenticeship shortened to twelve months' full time, or two years' half-time.

## FEES

1. *College Fees*.—College and University fees vary from about \$40 to \$160 per annum.

2. *Examination Fees*.—The examination-fee and diploma to practise cost from \$20 to \$45. Usually held end of May or beginning June.

3. *The Registration Fee*.—Annually paid to the Pharmaceutical Association of the Province, is \$25 or \$50. This is the licence to practise. In some cases persons can be restored to the Register on payment of a fine; in others, the lapse of five years renders a person liable to re-examination to ascertain up-to-date fitness for carrying on pharmacy.

*Numbers of Canadian Entrants into Pharmacy*.—Last College year, 1921-22, there were nearly 700 students in the different pharmaceutical colleges or pharmacy departments of the Universities, of whom more than two-thirds were in the older and more populated provinces of Ontario and Quebec.

## Conditions of Acceptance of other Qualifications

PRINCE EDWARD ISLAND.—No details available.

NOVA SCOTIA.—No details available.

NEW BRUNSWICK.—No details available.

QUEBEC (from By-laws 37 and 38).—A unanimous vote of Council can accept authenticated certificates of examinations by duly appointed medical or pharmaceutical boards,

showing an equal primary examination, and equivalent lectures, examinations, and time-service, along with certificates of good moral character and photograph. A good working knowledge of French and English required (no women admitted). Fee, \$50 for such as above; or holder of British qualification can be registered as an assistant-pharmacist, then must serve one year under qualified pharmacist in Province of Quebec, and take qualifying examination of Quebec to become a Licentiate in Pharmacy. Must speak French.

ONTARIO (By-law 18).—"All persons approved of by the Council who hold diplomas from the Pharmaceutical Society of Great Britain, or certificates from any Pharmaceutical College in the Dominion of Canada or elsewhere, may be registered as members of this College without the examination prescribed by this Act (I. Geo. V., c. 40, s. 18)."

MANITOBA (By-law 19).—"The Council may in its discretion accept the diploma or other authenticated certificate of examination of any other competent examining Board out of the Province of Manitoba, or of the University of Manitoba, as sufficient evidence of qualification of any applicants to be registered under this Act as certified apprentice, certified clerk, or pharmaceutical chemist respectively."

SASKATCHEWAN.—By-laws undergoing revision, and Registrar will forward as soon as revision is concluded.

ALBERTA (By-law 23).—"All registered licentiates in pharmacy from Pharmaceutical Associations of Great Britain or Ireland, or from any Pharmaceutical Association or College of Pharmacy in the Dominion of Canada or the United States of America, may be registered as members of the Alberta Pharmaceutical Association on producing to the University of Alberta satisfactory evidence that at the time such persons procured their licences from any such other College or Association the educational requirements for such licences were in all respects equivalent to those of the Alberta Pharmaceutical Association in respect of its own candidates at the time such licentiates apply for membership in the Alberta Pharmaceutical Association; and the said University may prescribe such courses and examinations as it deems necessary for any such registered licentiate applying for registration in the Alberta Pharmaceutical Association who may not otherwise be entitled to register under this Act in order to place the educational standing of such applicant on an equality with the requirements of the said University at the time of such application, and on such applicant producing to the Registrar of the Association a certificate from the Registrar of the University showing that he has fulfilled all such educational requirements, and upon his otherwise complying with the by-laws of the Association, he shall be entitled to be registered as a member of the said Association."

BRITISH COLUMBIA (By-law 11).—"Every person approved of by the Board of Examiners who, by examination, has obtained a diploma or certificate from any Pharmaceutical Association or Society whose standing and requirements are equal to those of the Association, may, subject to the provisions of Sub-section (a) of this section, be registered without the examination prescribed by this Act. Such persons shall produce certificates of good moral character, satisfactory to the Council of the Association, and shall be subject to such other regulations as may be provided for in the by-laws of the Association: Provided, however, that the said by-laws shall not require, on the part of such person, any previous residential qualification."

(b) It is hereby declared that the Council of the Association shall from time to time determine what Pharmaceutical Associations or Societies are to be accepted as satisfactory under the provisions of this section; and said Council may, if it sees fit, exclude from the provisions of this section any Pharmaceutical Association or Society which does not accept, without further examination, diplomas or certificates of the Pharmaceutical Association of the Province of British Columbia."

I understood that qualified men from Great Britain can be registered at once as "certified clerk" on payment of fee.

## Other Points

Some points seemed specially interesting which are not inserted in the more formal part of the Report, and amongst them might be mentioned:—

1. The mapping out of courses of home study for each year of apprenticeship (Ontario).
2. Matriculation basis almost universal as a Preliminary examination.
3. Compulsory health insurance for medical attendance and drugs during college session (Alberta).
4. All examinations written as well as *viva voce* (although in a few there is little or no practical).

5. An annual fee for licence to practise is universal throughout the Dominion, thus making membership of the association or society compulsory.

6. The use of "Minor" and "Major Examination" as ours originally were used, i.e., for qualified assistant and master-pharmacists respectively, in several instances.

7. The large range of titles which it is possible to protect. Thus, in British Columbia, "If any person not holding a valid certificate practises . . . pharmacy . . . or falsely takes any name, addition or description implying that he is duly authorised to practise the profession or calling of pharmacy . . . he will pay a penalty of \$100 for each offence." In Manitoba the titles of "chemist and druggist," "chemist," "druggist," "pharmacist," "pharmaceutical chemist," "dispensing druggist," "herbalist," and "any similar title," are limited to licensed pharmaceutical chemists of the Province; and also it is illegal to use the word "drug store," "pharmacy," or "dispensary," or any similar word, unless by qualified persons, and every drug store must be registered as well as its owner or manager.

8. In several Provinces it is illegal for a limited company to own a drug store, unless a majority of the directors are qualified.

9. Hypodermic syringes may not be sold by unqualified persons, in some Provinces—and a physician, dentist or veterinary surgeon who signs a prescription for a drug unless required by a person under his professional care, is liable to a fine.

In conclusion, may I here, again, gratefully acknowledge all the courtesy shown to me whilst in Canada by the officials of the various Pharmaceutical Associations of Canada, and by the professors in charge of the pharmacy departments of the Universities and Colleges which I was able to visit. Where all were so informative, and so ready to talk over the position of things in their Province, it would be invidious to mention any names, but I know that the Society which I had the honour of representing in Canada will join with me in this sincere acknowledgment of the sources of the information embodied in this report.

## Insurance Act Dispensing

Record of matters concerning Chemists' interests in the National Health Insurance Acts

### Local Reports

#### ENGLAND AND WALES

**Middlesex.**—The Pharmaceutical Committee held a meeting recently, at which the following statistics were presented by the checking supervisor:—

August, 1922 September, 1922

Number of prescriptions	75,634	84,703
Total value	£2,678 13s. 1d.	£2,994 9s. 1d.
Average ingredient cost	4.00d.	3.99d.

" dispensing fee 4.49d. 4.49d.

Urgent fees in Middlesex during the second quarter of 1922 numbered 691, to the total value of £13 8s. 10d. The Ministry of Health has decided that no special record of these fees is to be kept in future, but has notified the Pricing Office that "these prescriptions should always be regarded as being of special interest to the Panel Committee." Vaccines and serums continue to be ordered frequently. Articles disallowed include inhalers, suture clips, glass funnels, syringes, Ovaltine, Valentine's meat juice, and Vibrona wine. Ministry of Pensions prescriptions for the London region show a reduction in number. Thus:—

#### Cost.

		£	s.	d.
May	...	21,237	...	1,144 10 6
June	...	24,477	...	1,292 10 5
July	...	20,936	...	1,030 5 1

**Worcestershire.**—At a meeting of the Insurance Committee on November 25 it was reported that in the June quarter this year there were 64,512 prescriptions, and the figure for the September quarter was 57,542. The cost in the two quarters was £2,465 and £2,063, and the insured persons numbered 81,081 and 80,784.

## Inaccurately Weighed Powders

THE Middlesex County Council has received from its Public Health Committee a lengthy report on the examination of thirty informal samples of drugs, which were tested in order to ascertain the accuracy with which medicinal powders are weighed.

### ACETYLSALICYLIC ACID

The report states that acetylsalicylic acid—a drug of considerable potency—was asked for in batches of six powders of 6 gr. each. In one case the six powders supplied were from 2½ gr. to 5 gr. each, averaging 4 gr.—a serious variation. In two other instances the six powders supplied varied from under 5 gr. to 7 gr., and in two cases no powder weighed more than 5½ gr. In consequence of the variation of the weights of these powders, one of the inspectors of weights and measures paid a special visit to the shops of the pharmacists concerned, and examined the small weights and scales. Several weights were found to be in need of adjustment or replacement, and in three instances the dispensing scales, though not unjust, were somewhat lacking in sensitiveness. Two pharmacists have been so informed, and have taken steps to ensure that their scales and weights shall be more accurate. "But the inaccuracies found in the quantities of the powders were not wholly due to the weighing appliances," adds the report.

### SEIDLITZ POWDERS

A number of seidlitz powders, purchased at different shops, were also weighed with remarkable results. Twelve samples corresponded in weight well, and in some instances exactly, with the official strength laid down in the British Pharmacopœia (blue paper 10 grams, white paper 2.5 grams). Five of the packets of seidlitz powders were declared by label as "extra strong," and the weights of the blue packets in these cases varied from 11.8 to 14.7 grams, 13.75 grams being the weight commonly understood for powders sold as "extra strong." Five parcels of powders of unusual strength were sold as "Genuine Seidlitz Powders," without any declaration that they were not of ordinary strength. The weights of these are:—

Sample No.	Blue paper.		White paper.		Sample No.	Blue paper.		White paper.	
	Gram	Gram	Gram	Gram		Gram	Gram	Gram	Gram
284	13.75	2.31	421	...	391	13.55	13.55	2.4	2.39
	13.95	2.59				13.6	13.6	2.38	2.38
	13.95	2.45				13.06	12.82	2.33	2.46
292	13.35	2.71	277	...		12.91	12.91	2.4	2.4
	13.65	2.45				21.0	21.0	2.5	2.5
	12.97	2.13				21.08	11.15	2.53	2.48

One of the last parcel of powders (No. 277), in which the blue packet weighed as much as 21 grams, was referred to the county analyst, who certified that it contained 145 per cent. excess of sodium potassium tartrate, as compared with the requirement of the British Pharmacopœia. A subsequent sample purchased from the same vendor was found to be quite satisfactory and to correspond exactly with the formula of the British Pharmacopœia. One parcel of three seidlitz powders was very damp, and the powders were all light, one of the blue packets weighing as little as 8.6 grams, while two of the white packets weighed respectively 1.7 and 2.2 grams, instead of 2.5 grams. "It thus appears," concludes the report, "that a member of the public asking for a seidlitz powder in Middlesex may receive a blue packet weighing almost anything between 8.6 grams and 21 grams, without any notification by the vendor of the strength or weight of the powder supplied. Although a seidlitz powder does not consist of highly toxic ingredients, this haphazard method of sale cannot be defended, and your Committee have accordingly directed that serious cautions be sent to the five pharmacists who sold seidlitz powders of unusually great strength without any declaration, the vendor of the specially light seidlitz powders, and the vendor of the acetylsalicylic acid powders seriously deficient in weight."

## MARRIAGES

IRVINE-STOUT.—At St. Olaf's U.F. Church, Lerwick, on November 22, by the Rev. David Houston, M.A., assisted by the Rev. John Willcock, D.D., D.Litt., O.B.E., John T. Irvine, Hankow, China, to Annie Elizabeth, eldest daughter of Mr. Charles B. Stout, Medical Hall, Lerwick.

MOND—GUGENHEIM.—At St. Marylebone Register Office, London, W., on December 6, Robert Ludwig Mond, J.P., manufacturing chemist, Combe Bank, Sevenoaks, to Marie Louise Gugenheim, daughter of G. J. Le Mauach, Belle Isle en Terre, Brittany.

SIMPSON-BARLOW.—At Burnley, recently, J. M. Simpson, Manchester Road, to Lucinda, daughter of Mr. J. A. Barlow, chemist and druggist.

## DEATHS

ASHTON.—At Hoylake, after a long illness, Dorothy, the beloved wife of Mr. H. M. Ashton, chemist, 17 Castle Street, Beaumaris.

BALFOUR.—At Courts Hill, Haslemere, on November 30, Sir Isaac Bayley Balfour, F.R.S., M.D., D.Sc., LL.D., aged sixty-nine. Sir Isaac Balfour was the second son of the late John Hutton Balfour, professor of botany at Edinburgh University, under whose tuition he distinguished himself, while still a boy, as an enthusiastic collector of British plants. After graduating in Edinburgh in medicine and surgery, he became professor of botany at Glasgow University in 1879, and five years later received the appointment of Sherardian Professor of Botany at Oxford. This chair he gave up in 1888 on his appointment as Queen's Botanist in Scotland, Keeper of the Royal Botanic Gardens in Edinburgh, and Regius Professor of Botany. He resigned these offices last March. An interesting episode in his career was his visit to Socotra in 1880 as naturalist to an expedition. The "king" of the island gave him several presents, including specimens of *Aloe Perryi*, which, it afterwards turned out, contained very little aloin. Sir Isaac, who was elected an honorary member of the Pharmaceutical Society in 1896, wrote extensively on botanical subjects, and was one of the editors of "The Annals of Botany."

BLEZARD.—At Spring Bank, Preston, Lancs, on December 1, Mr. Thomas Blezard, chairman of Thomas Blezard, Ltd., wholesale druggists, Lord Street. Mr. Blezard had been on a visit to Ireland for the benefit of his health, and died suddenly on the day of his return.

BENTLEY.—At Dovercourt, on December 3, Mr. John Thomas Bentley, J.P., retired chemist and druggist, aged 67. Mr. Bentley was at one time in business at Bury St. Edmund's, where he was a member of the town council. Since going to reside at Dovercourt he had served as a member of the local education committee. He leaves a widow and one son.

CHASE.—At Abbotsford, Pope's Avenue, Twickenham, on December 1, Louisa Ann, wife of Mr. Thomas Chase, Ph.C., late of Edgbaston, Birmingham, aged seventy-eight.

FRASER.—On November 27, Mr. John Fraser, chemist and druggist, 57 Cranbury Road, London, S.W., aged sixty-two. (See p. 798.)

LUCAS.—At 38 Dunraven Place, Bridgend, Glamorganshire, on November 22, Mr. Robert Lucas, chemist and druggist, aged seventy-seven. Mr. Lucas passed the Modified examination in 1875.

MOORE.—At Hancox, Battle, on November 30, Sir Norman Moore, Bt., M.D., LL.D., late President of the Royal College of Physicians, aged seventy-five. Sir Norman Moore graduated in medicine at the University of Cambridge. He was for some years physician to St. Bartholomew's Hospital, London, and in 1901 was chosen as a representative of the Royal College of Physicians on the General Medical Council. Sir Norman, who was a member of the Committee responsible for the present British Pharmacopoeia, contributed numerous monographs to scientific publications, and wrote upwards of 450 articles in the "Dictionary of National Biography."

REILLY.—At Nice, recently, Mr. Thomas J. Reilly, late a partner in the firm of Reilly & Co., distributing agents, 8 rue Niepce. Mr. Reilly's firm had a large connection in British and American medicines, and he had friends in pharmacy in many parts of the Continent.

ROBERTS.—At 23 Gordon Square, London, W.C.1, on December 1, Christine, the dearly beloved wife of Mr. J. W. Roberts, chemist and druggist and dentist. Interred at St. Pancras Cemetery on December 6.

RUSSELL.—At 23 Blackness Avenue, Dundee, on November 29, Mary Christison, sole survivor of the family of the late Mr. David Russell, chemist, Dundee, aged seventy-eight. An interesting link with the past is broken by the death of Miss Russell, a lady whose philanthropic deeds endeared her to a wide circle. The late Mr. Russell established himself in Dundee in 1871, and was President of the local Association in 1860. An account of his career was given in THE CHEMIST AND DRUGGIST, II., 1902, p. 146.

SINHA.—On November 24, suddenly, of heart failure, Raja Manindra Chandra Sinha of Paikpura, India, aged twenty-four. The late Raja was President of the School of Chemical Technology, Calcutta, and did much to promote pharmaceutical and chemical education in India. He was made a Raja only last January, and a M.B.E. in recognition of his services during the war.

SWINN.—At Boston Street, Manchester, on November 26, Mr. Charles Swinn, Ph.C., aged eighty-one. (See p. 793.) Mr. Swinn, who passed the Major examination in 1859, carried on business in Manchester for many years. Several Masonic brethren attended the funeral service, which was conducted by the Rev. D. Ellison. The following pharmacists were present: Mr. T. E. Eastwood, Mr. Stacey Hall, Mr. S. R. Hyde, Mr. J. Wild, and Mr. A. C. Vallance (James Woolley, Sons & Co., Ltd.).

## PERSONALITIES

MR. U. J. BRADLEY, B.Sc., elder son of Mr. T. H. Bradley, chemist, Staveley, has been awarded the M.Sc. degree by the University of Manchester for research done on the chemistry of motor fuels.

MR. T. EDWARD LESCHER, O.B.E., M.P.S., has been appointed managing director of Evans Sons Lescher & Webb, Ltd., Liverpool and London. For this position Mr. Lescher's exceptionally intimate knowledge of the conditions of the drug-trade, both home and export, renders him eminently suitable. Mr. Lescher is a son of the late Mr. F. Harwood Lescher, Ph.C., who joined the firm of Evans, Lescher & Evans in 1866, and a grandson of Mr. J. Sidney Lescher, who became a partner of Mr. John Evans in 1828. He himself joined the directorate when the present limited company was formed by the amalgamation of Evans, Sons & Co., Liverpool, with Evans, Lescher & Webb, London, in 1902. For some years he was secretary of the Drug Club, and more recently his services in that capacity were recognised by his election as President of the Club. He has also been President of the London Chemists' Golfing Society for a long period. During the war his expert knowledge was of the utmost value in allocating various controlled commodities, and in 1920 he was created an Officer of the Order of the British Empire. (An announcement of the appointment of additional directors of this company appears on p. 803 of this issue.)



MR. T. E. LESCHER.

## Trade Notes

BIRD'S CORN-FLIT is a distinctive corn cure which is advertised in this number by Mr. J. E. Garratt, 96 Southwark Street, London, S.E.1.

JARASO PERSONAL WEIGHING MACHINE is illustrated in the advertisement of Albert C. Shoppee, Ltd., Belmont Street, Chalk Farm, London, N.W.1.

PRICE LIST OF RUBBER GOODS.—The London Rubber Co., 183 Aldersgate Street, London, E.C.1, have issued a new price list of rubber goods. Chemists are invited to apply for copies.

MR. THOS. SWALES, 20-24 Butts Court, and 89 Albion Street, Leeds, devotes his advertisement in this issue to six special lines : hot-water bottles and covers, dispensing bottles, hygienic feeders, corn velvet, and cloth cleaners.

CALENDAR.—Potter & Clarke, Ltd., 60, 62 and 64 Artillery Lane, London, E.1, have issued a calendar for 1923, which takes the form of a large representation of a tin of Potter's Asthma Cure. A tear-off calendar is affixed to the side of the card.

MORNY PRODUCTS.—Morny Frères, Ltd., 6 New Burlington Street, London, W.1, have issued a booklet giving detailed particulars of the presentation coffrets which were recently advertised in the *C. & D.* The coffrets are much in demand as Christmas presents.

TOILET REQUISITES.—Burge, Warren & Ridgley, Ltd., 91 and 92 Great Saffron Hill, London, E.C.1, have sent us a price list of toilet requisites which they have just issued. It includes useful lines in combs, hair brushes, tooth brushes, shaving brushes, puffs, etc.

DAWSON BROTHERS' MACHINERY.—Writing on December 5, Dawson Brothers, Ltd., Ventnor Iron Works, Gomersal, Leeds, point out that in the account of the Manchester Chemists' Exhibition in our issue of November 25 it should have been stated that the second of the machines to which reference is made can deal with 150 dozen an hour: a regrettable slip was made in the figure given.

FRANZ JOSEF MINERAL WATER.—Thos. Christy & Co., 4, 10 and 12 Old Swan Lane, Upper Thames Street, London, E.C.4, have been appointed sole selling and distributing agents for Franz Josef Water. The retail price is 2s., and original cases hold 50 bottles—only one size is put up now.—Referring to the samples of Vin Bravais mentioned in this column last week, Messrs. Christy inform us that we were mistaken in stating these are sent to doctors through chemists, the samples are sent direct to the doctor.

LUTON FABRIC DYES.—Whitaker & Co., Kendal (London showrooms, 61 and 62 Craven House, Kingsway, W.C.2), advertise in this issue the Luton fabric dyes which they have recently placed on the market. These are fast dyes, produced in a large variety of colours. The dyes are in powder form and are packed in a very attractive manner, the envelopes being printed in gold and colours. A special counter case is issued which holds a supply of the packets and has in the lid a card of dye patterns. These cards of patterns are supplied separately. A sample packet and a pattern card will be sent to any chemist who applies.

ANOTHER LITTLE WAR?—In answer to an urgent appeal received from the Greek Red Cross and also from the Turkish Red Crescent, the Austrian Red Cross Society has supplied each of the belligerents with a complete field pharmacy, regretting that, in consequence of the conditions prevailing in Austria, a more active participation is impossible.

AN OFFICIAL REPORT on Algerian agriculture, etc., states that Geranium has been cultivated in the colony for the last half century, principally in the plain of Mitidja, the largest plantations are now near Blida. Some 3,000 acres are under cultivation and the exportations of Geranium oil were about 34 tons in 1919, nearly 15 tons in 1920, and a trifle less during 1921. Bitter orange also grows in the Mitidja plain, Boufarik and Ruvigo being the centres. Some 200 lbs. of Neroli and 300 of Petit grain were produced in 1921. Peppermint and Rue are gathered in a wild state.

## Glaxo Price-Scheme

The "Glaxo Bulletin" for December, issued by the proprietors of Glaxo, gives particulars of the new scheme of price protection, which consists essentially in the distribution of the product through a limited number of authorised agents (*C. & D.*, November 25, p. 736). The distributors agree not to sell Glaxo or Glaxo malted food to other than the retail drug trade, medical men or medical institutions. They must not sell to grocers, general dealers, health food stores, co-operative societies, or patent medicine vendors, even though such dealers may have what is known as a drug department. Any question as to the classification of a business must be referred for decision to the Sales Manager of Glaxo. Further, every wholesaler must undertake to withhold supplies from any dealer at the company's request. The "Bulletin" contains an open letter to the drug trade by Mr. Hugo Wolff, in which the new policy is stated to mean "that Glaxo—a nationally advertised article, with probably the largest turnover of its kind—is going to be distributed solely through the drug-trade." The minimum profit is 20 per cent., no matter what the turnover may be, and carriage is paid on £3 orders. Mr. Wolff appeals for the help and co-operation of the trade, and is instituting a postcard method of obtaining the opinion of chemists upon the scheme.

We have received copies of circulars which wholesale patent medicine dealers are sending to chemists explaining that they are, through the operation of the new scheme, unable to supply their customers with Glaxo. Barclay & Sons, Ltd., in their circular, state that they were offered a maximum gross profit of 6½ per cent. on Glaxo, which they could not accept, as it entailed doing business at a loss. The circular concludes :

We trust Messrs. Glaxo will soon realise that the increase of the bottom price to the trade, to the extent of making it impossible to distribute by wholesale at a profit, is not justified. Meantime, we ask for your support, and the acceptance of the assurance of our loyalty to the P.A.T.A., and to the spirit of mutual co-operation between wholesaler and retailer, which the Glaxo scheme so seriously threatens

## Information Department

### INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated:

B/512. Beaufoy's conc. solution of Chloride of Lime	M/612. Liquaplaster T/2911. Machines for making hard gelatin capsules (telescopic)
S/412. Crysta Majente Dyes	M/612. Magic Inhaler
P/412. Dr. Hale's Halloids	D/412. Tryparsamide
S/612. Haemoplasfer	
M/612. "Leda" Teats	

### INFORMATION SUPPLIED

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.4.

Baby's toilet sets. H/512	Lucca Olive Oils. B/412
Borax glass. G/612	Murray's Gout Specific. P/212
Bottle - capping solutions (coloured). B/612	Pepsencia. C/112
Camphylene balls. B/612	Robin's Glycerophosphates. F/112
Ducat's Novar-ol. B/212	"Royal Dorothy" Soothers. S/612
"Ferronait." T/612	"Rubbabubdub" rubber toys. E/112
Filling machines for liquids. P/3011	Seed-grinders. T/3011
Hetol. H/612	Vapo-cresoleme. C/212
Hormonin. S/512	Vermisol. D/512
"Koko" for the hair. B/412	ViVim. A/2911
Latona de Composee. L/512	

FAILURES IN 1921.—The annual report by the Inspector-General for Bankruptcy (H.M. Stationery Office, 3s. 6d.) states that the number of failures in 1921 was much larger than in any year since the Bankruptcy and Deeds of Arrangement Acts of 1883 came into operation. In England and Wales in the year under review 3,472 receiving and administration orders were made, an increase of 1,907 over the figures of 1920. Deeds of arrangement in 1921 numbered 1,368, an increase of 917 over the previous year's total.

## Observations and Reflections

By Xrayser II.

### "The Spirit of Nationality"

is an amiable thing when not in excess, as some unkind people have held that usually it is in Scots. Professor Irvine's lecture on Scotland's contribution to chemistry, however, lays him open to no such charge. There is in it nothing of the animus which prompted the question, "Whar's your Wullie Shakespeare noo?" after the production of Home's "Douglas." The names the Professor adduced in support of his claim that Scotland has never lacked chemists whose work can be ranked with that of the great leaders in the science would do honour to any country, though they cannot all be held equal to Priestley and Paracelsus. Black, Graham, Williamson and Ramsay will always be outstanding figures in the history of the science, and the other names he mentioned might be matched with still others of equal note that he did not name, if, that is, men of Scottish blood not born in Scotland are to be taken into account. Black himself was one of these, though the Professor did not mention the fact. He was born at Bordeaux and his parents were natives of Belfast, in which city Black first went to school. What Professor Irvine tells us of Couper is of exceptional interest; he is one of the "inheritors of unfulfilled renown" to whose memory justice is at last being done.

### Hashish,

If all reports are true, bids fair to be included in the list of "dangerous" drugs traffic in which is forbidden except under the Regulations enforced by the Dangerous Drugs Act so-called. It is said to be in considerable demand, not chiefly for its narcotic properties, but as a love-charm. The action of hashish is, according to the authorities, much more variable and less certain than that of opium, and it differs not only according to the dose, but according to the idiosyncrasy of the individual. Almost always there are extraordinary hallucinations, but they are of a very various kind, and it is curious that though dreams of a voluptuous nature are produced by the drug in Orientals, it is said not to have this effect among Europeans. Hemp, however, is universally regarded as a plant of love, at least in folk-lore, though the reason for this is not very obvious. The sowing of hemp seed at certain seasons is, or used to be, a charm which lovers cannot resist, and in some countries a hempen thread with which a hair of the beloved one has been entwined is believed to have the same potency. At first sight it is difficult to reconcile such superstitions as these with the fact that hashish, prepared from Indian hemp, has given its name to the sect of assassins, but it was not so much hatred that led those who first bore that name to murder Christians as the hope of gaining Paradise thereby, the joys of which were figured to them in the gorgeous dreams induced by the drug.

### I am Glad to See

that the Scarborough and North Riding Association is making a stand against the "free" distribution of proprietary articles, against which I was, I believe, the first to make a public protest. I have been surprised to see one or two of the smartest men in my neighbourhood lending themselves to this system—an extremely disingenuous one. Its practical disadvantages to the retailer are so well urged by Mr. Scott that I need not dwell upon them.

### The Essay Competition

In connection with the Manchester Exhibition was excellent in intention, but the result is disappointing. I cannot praise either of the essays to which first prizes were given. Of the two questions asked of the essayist in Class 1 the first is not answered, except by inference, and that obscurely. Three-fourths of the space given to its discussion is taken up by fancy sketches of two types of pharmacists, neither of which

entirely satisfies the essayist, though he expresses a preference for the second; and when at length he comes to the "simple nucleus of his statements" he puts the matter the wrong way about. He says the public cannot credit the man who is skilful in all that pertains to the compounding of medicines with a real concern "for the shape of milady's bathing-cap," etc.; meaning, apparently, that a man so concerned will hardly be regarded as a skilful compounder. We are, I suppose, to infer that to win the public confidence as pharmacists we must manifestly make pharmacy our chief concern, but the inference actually drawn appears to be that pure pharmacy can never exist alone. The second question is rather more definitely answered, but the essayist is uneasily conscious that the one he has left unanswered is still "nosing around after him," and speaks, therefore, somewhat confusedly. The other essay is the better of the two. The writer does really come to grips with his subject, but he writes very badly. Neither essay, indeed, reflects much credit upon our education in English.

### "Ordinary Chemist"

asks why we dare not try for a new Act. The question would be more appropriately put to the Pharmaceutical Council than to me. All I know is that frequently when a promising scheme of reform has been put forward it has been met by the objection that it would require an Act of Parliament to bring it into force, and that this must not be thought of. The Council apparently mistrusts its ability to cope with the forces likely to be arrayed against us in Parliament, and may, not unnaturally, be influenced by the reflection that on previous occasions we have set out to shear and come back shorn. As for your correspondent's other question, I am far from supposing that "all this organisation" is purely for the benefit of the common chemist and druggist. All that the common chemist and druggist asks of the Society is to be let alone. Not that he is satisfied with his position, but that, as a rule, he would rather bear the ills he has than fly to others that he knows not of. This may be a pusillanimous attitude, and, of course, it bears upon the question of parliamentary interference, but it is the result of experience. That it is common to a large body of pharmacists is shown by their abstention from the election of Councillors. The organisation scheme may be designed to arouse us from this state of comparative apathy, but its practical outcome is likely to be nothing more or less than a substitution of King Stork for King Log.

### Mrs. Kendal,

whose early appearances on the stage some of us still remember with delight, has recently appeared in a new rôle, having been chosen to unveil the portrait of St. Apollonia, the patron saint of dentistry, at the offices of the Medical Society of London. Where the original of this portrait was obtained I don't know, or how the Saint comes to be dressed in such a modern-looking costume (her date is 249), or why this time of year was chosen for the ceremony, since February 9 is her "day," or, indeed, why she should be specially invoked by dentists. This cult began, I believe, in France, where she is called St. Apolline and is prayed to for relief from toothache, on the ground that her martyrdom began by the extraction of all her teeth. This is certainly a radical remedy for toothache, and there is no doubt a kind of martyrdom involved in a visit to the dentist, but I should hardly have expected practitioners of dentistry to remind us of the fact. Perhaps we are meant to understand that we acquire merit by submitting to their operations and are expected to show the patient endurance of a saint under them; still, my devotions would preferably be addressed to some quarter from which relief could be obtained by less drastic means than the forceps.

At a recent meeting of the Bolton Town Council a protest was received from the Central Engineering Union against the quality of drugs supplied to panel patients. A committee was instructed to inquire into the question.

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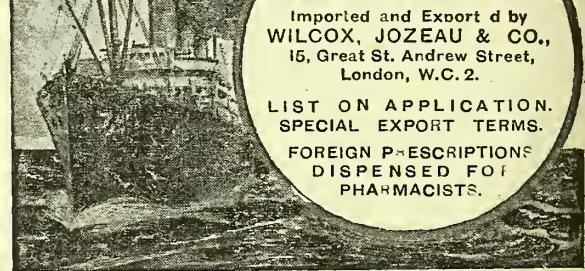
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## Editorial Articles

### "Dangerous" Drugs for Ships

Our attention has been called by subscribers to the difficulty which is experienced in not being able to supply "dangerous" drugs to foreign vessels in British ports. In the cases referred to the requirements of the masters of foreign vessels were perfectly legitimate, and the fact that chemists could not supply the drugs was calculated

to inflict unnecessary suffering on seamen. We accordingly, on October 31, sent the following letter to the Home Secretary :—

We shall be glad to have the opinion of the Home Office in a difficulty which subscribers in Cardiff and London have experienced in not being able to supply *tinctura chloroformi et morphinæ composita*, and *tinctura opii* to foreign ships and fishing vessels. Regulation 15 (under Section 7 of the Dangerous Drugs Act), by its reference to the Merchant Shipping Acts, seems to limit "possession" (and consequently supply by chemists) to British vessels, whilst the authorisation made on August 13, 1921, definitely limits the possession (and supply) to skippers of British fishing vessels. We shall be glad to know whether the regulation and authorisation referred to make it possible to supply these preparations to foreign ships and fishing vessels.

What is probably the result of our letter is a circular issued by the Ministry of Health to the Port Sanitary Authorities. The circular states that the requirements of the Regulations made under the Dangerous Drugs Act do not apply in the case of a foreign ship, and no person on board such a vessel would have any authority to obtain "dangerous" drugs in this country. The circular proceeds :—

It is not probable that supplies of such drugs would be required frequently for foreign ships, and when a particular drug is wanted for the treatment of an actual case of sickness on board a vessel in port, it would usually be possible for a medical practitioner to be called in to give a prescription. Cases may, however, occur in which supplies of these drugs are essential for the proper equipment of vessels about to leave port, and it is desirable that arrangements should be made in order that the masters of foreign ships may be enabled to procure any supplies of dangerous drugs that may be required to complete the proper equipment of their vessels for the voyage to the home port. It has accordingly been suggested that port Medical Officers of Health should be authorised by the Secretary of State to grant certificates for the supply of dangerous drugs to foreign ships, when satisfied that the drugs are required to complete the necessary equipment of the ship (on the Board of Trade standards for British ships), and that the quantity of each drug is not more than is needed for the voyage to the home port, and the Minister would be glad to be informed at an early date that the Port Sanitary Authority would be willing to allow their Medical Officer of Health to give the necessary certificates.

It is probable that the Port Sanitary Authorities will agree to the suggestion of this circular, in which case, no doubt, the Home Office will issue the necessary amendment of the Regulations made under the Dangerous Drugs Act.

### Pituitary Extracts

THE Privy Council have issued a report from the Medical Research Council on extracts of the posterior lobe of the pituitary body (Stationery Office, 1s. 6d. net). It is edited by Drs. J. H. Burn and H. H. Dale, who, with Dr. H. W. Dudley and Miss F. M. Durham, have performed the experiments and made the various tests. The method of physiological standardisation, while it has met with a great deal of criticism, does undoubtedly, in the absence of any exact chemical method, help the physician towards some standard of uniformity. Extracts of the pituitary body have become so important nowadays that the report will surely lead to a better understanding of the failure of some of the products to produce the desired effects. The authors point out in the introduction that "abundant proof has already been produced to show that the commercial preparations of

the extract exhibit enormous range of variation in activity." The time was, a year or two ago, when the preparation seemed to be going out of use on account of the extreme variation; then would come a recrudescence of activity, presumably due to a more satisfactory substance. Some medical men would bank on the preparation, while others would vote it of very little use. The report now issued helps us to understand, but at the same time shakes one's confidence in the preparation where there is no official standard. The report should lead manufacturers towards eliminating the variableness of the extract. There are various methods of expressing the activity, and this variation leads to confusion. The authors investigated first the choice of a physiological method. At least two active principles are involved with which the use of the extract has acquired its reputation : one is the blood-pressure raising principle, and the other is its action on the uterus. There appears to be some doubt whether these two intertwine in their action. The point to be aimed at was one which should be a measure of one or of both these effects. It is noted that conditions which lead to loss of activity in one lead to deficiency in both. Though these two principles generally run parallel, they do not, from the evidence, always appear to do so, and cases are cited of a marked variation. Though the evidence for a differentiation was insufficient, it was felt that it would be better to choose one or other principle for estimating the activity; the authors pointed out, however, that for absolute assurance satisfactory measurements in both directions should be made. They ultimately chose the method of testing on the isolated uterus of the guinea pig. They are confirmed in this method after a lengthy period of careful experiments. The use of the living animal is not involved in the experiment. A strip of the uterine muscle of carefully selected female guinea pigs in a state of sexual rest is immersed in Ringer's solution, to which suitable doses of the extract can be applied, and the reaction is communicated by a lever to the recording drum. The apparatus is a slight modification of the one which was devised by Dale and Laidlaw. The Locke-Ringer solution is also slightly modified as a result of experience in securing the continued rhythms of isolated segments from the animal body in the laboratory. It was noticed that changes in the composition of the Ringer's solution were sufficient to affect the sensitiveness of the plain muscle to the pituitary extract. Thus it is necessary to state exactly what is the composition of the solution employed before actual comparisons can be made. There was a method of artificial standardising worked out by Roth in 1914 on histamine, and made official in the United States Pharmacopœia, IX. Several other workers examined this method, and our authors have come to the conclusion that it does not give satisfactory results. The same remark may also be applied to potassium chloride. The authors say that, with the U.S.P. method and working with a definite percentage of the extract against the required strength of histamine hydrochloride, the results show "the uteri from different guinea pigs, even under the best conditions, vary independently in their sensitiveness to histamine and to pituitary extract respectively, and these variations are such that the use of histamine as a standard for pituitary extract is unsatisfactory on this ground alone." Again, they point out that "the sensitiveness of the uterus to histamine and to pituitary extract varies in the opposite directions." After a close examination of potassium chloride, they came to a similar conclusion. They are driven to the

preparation in the laboratory of a standard extract prepared under the careful conditions which experience has taught them as necessary. It was requisite to prepare this extract from the fresh pituitary gland, as it was well known that the infundibular substance dried in the ordinary commercial sense, and kept in the laboratory in a stoppered bottle loses an important part of its activity in the space of a year or two. Seasonal variations in the glands were alleged, but apparently the authors attach little importance to this. They go even further, and declare that they were not able to find any variation in the posterior-lobe activity of the ox due to seasonal variations. The details of the method of preparing the fresh extract are then carefully explained, together with some of the difficulties which were met, the conventional standard of 20 per cent. being adopted as the proportion of dry substance in the fresh gland (which makes the 2.5 per cent. extract of fresh gland equal to 0.5 per cent. extract in terms of the dried substance). This is the standard extract on which the results were based. Various doses were applied under the specified conditions, the object being to establish, for the particular preparation, the dose which is about 60 to 70 per cent. to produce contraction to the maximum. Having fixed the required doses, the various tracings were made, and are shown in the report. The conclusion reached is that "extracts of perfectly fresh infundibular material, if prepared by a method kept exactly constant in all its details, furnish a sufficiently constant standard of reference for the biological testing of pituitary extracts." The investigators then proceeded to examine various commercial samples. They point out that small-scale working is the essence of producing a "standard fresh gland extract"; but the use of the pituitary extract in obstetrics has grown with such rapidity and to such dimensions that the supply of raw material is scarcely enough to meet the demand. As in the case of other pharmaceutical preparations, it is necessary to keep in mind and accept organised mass-production, with all its disadvantages as well as its convenience and efficiency. A comparative table is shown as follows:—

<i>Preparation</i>	<i>Proportion of activity present in final product (standard=100)</i>		
P 1st Sample	...	...	60
P 2nd Sample	...	...	50
Q 1st Sample	...	...	55
Q 2nd Sample	...	...	62.5
R 1st Sample	...	...	50 (or 55)
R 2nd Sample	...	...	60
S	...	...	21
T	...	...	2

P, Q and R show a preservation of the original activity to 50 to 60 per cent. S shows a greater loss, but in this there was a possibility of a slight misunderstanding in the supply of the original substance, which may have been 6 per cent. rather than 10 (on which the figures were calculated). In T there is only a trace of the original activity. The relative activities work out as follows:—T=1; S=11; R=25; Q=45; P=80. The pressor activities of the samples were taken, and as sample T had no pressor action, it could not be taken as unity; but the relative values are thus shown in the following table:—

<i>Preparations</i>	<i>Relative oxytocic activities, taking</i>		<i>Relative pressor activities, taking</i>	
	<i>T=1</i>	<i>P=80</i>	<i>T=1</i>	<i>P=80</i>
P	...	...	80	80
Q	...	...	45	Circa 40
R	...	...	25	15-30
S	...	...	11	Circa 23
T	...	...	1	0

From the concluding remarks of the authors we have selected the following salient passages:—

The figures given speak for themselves. The infundibular extract is a remedy which is at once valuable and dangerous, and the fact that such variations can occur in the activity of preparations habitually regarded by the medical profession as equivalent is deplorable. We have purposely refrained from giving the names of the manufacturers concerned, or details which would enable the products to be identified by our descriptions. . . . In the first place, we do not take the view that manufacturers are chiefly to blame for the position which we have displayed. No official guidance has been given to them in this country as to the strength of extract most suitable for therapeutic use, and no standard of activity has been available, though all the extracts we have examined were described as "physiologically standardised." We are satisfied that in all cases a conscientious attempt has been made to control the activity by a physiological test; we gather that, in the case of two members of the series, the testing was not carried out by the manufacturers' own staff, but by external and presumably independent authorities.

In the second place, past experience seems to indicate that the publication of the names of makers, in connection with figures showing the activities of their preparations, may result in advertising claims which are not truly justifiable. We are by no means convinced that the sample of P, in the list, is a better preparation than that of R. The proportion of available activity extracted in its manufacture is but little greater; its much greater activity is due to the fact that nearly three times as much gland is represented in the same volume. To the practitioner accustomed to R, P would be dangerously strong, while one accustomed to P would find R unduly weak; but the manufacturer would not in either case be entitled to claim superiority for his product. . . . What is wanted is not competition to produce the greatest possible activity in proprietary preparations, but conformity of all makers to a common standard. By whomever it is prepared, the pituitary extract is, essentially, a sterilized watery decoction of the infundibular substance, and we can see no proper obstacle to agreement on a uniform theoretical strength for this decoction.

The United States Pharmacopœia has officially settled this theoretical strength at 10 per cent. of the fresh infundibular substance. The British Pharmacopœia has not yet recognised the existence of this potent remedy. We strongly recommend the general adoption, by British manufacturers, of the theoretical strength laid down by the United States Pharmacopœia, so that the practitioner may be justified in his usual assumption, that the dose contained in the same volume is at least supposed to be the same, whatever preparation he uses.

If this recommendation is adopted, there is further needed a physiological assay, to ensure that the proportion of activity extracted by different makers from the standard proportion of gland shall be reasonably uniform. The United States Pharmacopœia has attempted to meet this need also. Unfortunately, as we have shown above, it has prescribed a standard which, so far as it can be applied at all, would result in the production of an extract having only a small fraction of the activity present in a 10 per cent. decoction of fresh gland substance, or of the equivalent of substance carefully dried when fresh. If the extract is defined as a 10 per cent. extract, the standard of activity demanded should be that obtained in such an extract by the manufacturer who uses sound material and proper skill. In proposing as the standard of reference our "standard fresh extract," prepared on a small scale, we do not suggest that preparations nearly approaching it in activity, in corresponding dilutions, could be prepared on the manufacturing scale with any regularity. We have clear evidence to the contrary; and if they cannot be produced with regularity, they should not, if occasionally produced, be placed on the market without dilution. Our measurements seem to indicate 60 per cent. of the activity of our standard extract, as a level which should be without difficulty attainable by any manufacturer who has the necessary equipment and staff for the careful extraction of perfectly fresh material, or of material which has been dried at low temperature when perfectly fresh, and used without unduly long storage. A 10 per cent. extract would need four-fold dilution to bring it to the same theoretical concentration as our "standard" 2.5 per cent. extract of fresh gland substance. We suggest that, at corresponding dilutions, no commercial extract should have less than 55 per cent., or more than 65 per cent., of the activity of our "standard" extract on the isolated guinea-pig uterus. If the activity is outside these limits, we recommend that it should be adjusted by dilution or blending to the 60 per cent. level of activity. A further test on the blood pressure of the cat or dog is desirable, to ensure that the pressor principle has not been preferentially destroyed by some accident.

### Depleted Shellac Stocks

In our issue of November 11 last (page 669) dealing with the position of shellac, we suggested, having regard to the stringent outlook, that there was not much chance of relief, and that even in the event of more normal quantities being shipped to this side from Calcutta during November and December, these would in any case not become available until January and February. As was to be expected, therefore, the maintenance of comparatively large deliveries again during November, amounting to 4,591 cases, against landings of only 1,882 cases, resulted in another considerable fall of 2,709 cases in the London warehouse stocks. On November 30 these represented a total of 5,335 cases, which thus constitutes a new low record at least in the modern history of the trade. The landings for the current month do not promise to be much better than for last month, or, say, roughly 2,000 cases as recorded for October, so that the total incomings for the last quarter of the year would not be much over 6,000 cases. The deliveries for November, although large, were well below those for October, and the aggregate for the eleven months represents 53,362 cases. The monthly average for this period thus works out at 4,851 cases, compared with 4,451 cases and 4,189 cases, respectively, for the whole of the two previous years. Whatever may be the possibilities of the market in the way of another advance over the balance of the year, which in a large measure depends on how matters shape at Calcutta, where the position has remained somewhat puzzling for some time past, there seems no escape from the contingency of our stocks here running to the paltry dimensions of a few thousand cases. The precarious outlook, therefore, confronting the market is a matter which is bound to arouse some little anxiety amongst consumers and those dealers who are short of stock against the standard contract, although so far as can be gauged, the speculative commitments open either way are not very important. The very high level of prices current for shellac, and the violent fluctuations which are always apt to ensue in an extremely sensitive market, are doubtless a matter for serious consideration in these days of greater financial and exchange uncertainties, and it is not surprising that speculative dealings are being conducted on very conservative and cautious lines, so that the trend of prices has been for some time past more especially determined by the law of supply and demand. The shortage in the Calcutta shipments to this market have been more particularly pronounced in the last two months, partly on account of the more important quantities which have been diverted to Continental ports, while the greater part of the supplies has been, as usual, shipped to the United States, where consumption appears to be going on on a very large scale. It is somewhat astonishing that, in spite of the crisis in the Continental rates of exchange, the Continental takings even for Northern ports, including Germany and Scandinavia, have been largely increased in the course of this year. Indications in that direction were already commented upon in our issue of June 10, when we stated that these takings would doubtless become more marked. As emphasised by the steady growth of consumption as clearly seen from the materially increased average of the monthly deliveries we have given since the year 1919, the use of shellac has been adopted for certain new industrial purposes. At this time last year statistical developments were precisely the reverse of what they are now. There was, indeed, a rapid mounting up of stocks during December, which resulted in the London stocks

being increased by 4,000 cases to about 11,000 cases at the close of last year. The swollen stocks, together with temporarily reduced deliveries, proved very deceptive to those who took liberties with the market on the short side, and thus met with serious losses in the early months of this year, while the January deliveries mounted up to about 7,700 cases, and the surplus stocks fell to low dimensions. This exciting period was intensified by subsequent sharp jumps in the Calcutta price to over 200 rupees, and under the much higher c.i.f. costs exacted by shippers, our market was eventually forced up to 400s. in practically all positions. As the present scarcity is becoming more acute than ever it was before, developments at the primary source will be watched with particular interest. The two extreme points recorded within the current year for spot delivery were 400s. and 280s. The latter figure was recorded some few months ago, and under the renewed constant drain from stocks the price has advanced to over 350s. quite recently. Our impression is that consumers are now faced with a critical period, and the attitude of holders on this side will be chiefly determined by the trend of the Calcutta market. There is, at any rate, not much hope of freer supplies on the spot for another few months, and should the foreign takings direct from Calcutta be maintained in the same proportion as for some time past, the quantities to come to London will probably remain on the short side.

### Canadian Honey

TRADE Commissioner Harrison Watson has been investigating the possibilities of marketing Canadian honey in the United Kingdom, and his report is published in a recent issue of the "Commercial Intelligence Journal." Canadian honey has hitherto never been exported to Great Britain in commercial quantities, but there was a considerable display at the Dairy Show in London last October, and this seems to have stimulated interest. There is no reason why an outlet should not be found in London, but Canadians would have to be prepared to compete with many other sources of supply, particularly Jamaica, Cuba, California, and New Zealand. And the probability is that they would have to accept lower prices than those usually obtained in Canada. We understand from Mr. Harrison Watson's report that several of the leading importers are prepared to receive, consider, and report upon samples of Canadian honey, which should be representative of what will be regularly sent, and also of sufficient bulk to enable thorough investigation, accompanied by lowest quotations c.i.f. London or other United Kingdom ports. This country is a large and increasing consumer of foreign honey, it being estimated that during the past ten years approximately 30,000 cwt. have been imported annually, but during the war exceptionally large supplies were brought in. As will be seen from the following table of imports for the year 1920 at least eight countries contribute to our supplies:—

	Quantity	Value
	Cwt.	£
Dutch West Indies	...	6,082
France	...	706
United States	...	7,716
Cuba	...	1,398
Chile	...	19,001
Australia	...	995
New Zealand	...	2,321
British West Indies	...	9,550
Other countries	...	5,254
Total	...	53,021
		224,201

There is, in addition, a very considerable production of honey throughout the United Kingdom, but this is an unknown quantity, and bears no relation to imported honey.

## Practical Wireless Telephony

### I. Introduction

THE articles on radio telephony and broadcasting in the *C. & D.* Special Number (I., 1922, p. 864) and *C. & D.*, November 18, p. 695, have aroused so much interest in the subject among chemists that some information dealing with the practical side of the science will be useful to those who have taken up wireless as a hobby or a sideline in business. It is proposed, first, to give some consideration to the nature and magnitude of the forces employed before discussing the practical details, but it may be mentioned that the wonders of wireless telephony and message reception from great distances become more and more astonishing as the method of reception becomes more refined. The best way of realising the action of wireless waves is by analogy with the phenomena of sound waves, some knowledge of which it is assumed the reader has already acquired. There are many ways of communicating signals from a distance without visible means of conveyance; thus, the human voice can transmit messages some distance through the air; a steam syren can be heard at a much greater distance, while gunfire may be heard for many miles. Sound can be transmitted through liquids and solids, and the transmission is explained as acting by rapid alternations of compression and rarefaction of the transmitting medium, which in all such cases is a tangible substance, and one that is evident to one or other of our sensory faculties. When, however, light waves and those employed in wireless are considered, it is found that they will pass freely through space devoid of air or any other material; so it is necessary to presume a medium which must possess certain definite characteristics, but still remains intangible, invisible, imponderable, perfectly permeable, but more highly elastic than steel, more rigid than adamant, and apparently quite indifferent to gravitation, and yet exhibiting inertia. Such is the contradictory nature of the aether which appears to pervade all space.

#### WAVE MOTIONS

Wave motions are spoken of as of two kinds—continuous or undamped, and intermittent or damped. Continuous waves are such as are produced by an organ pipe, and may be graphically represented by Fig. 1, where the crests

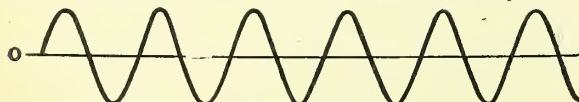


FIG. 1.

are all at equal height above and below the line of origin. A damped wave is of the class produced by a tuning fork or piano string, where the sound is loud at first but soon dies out, and may be represented by Fig. 2. Here it will

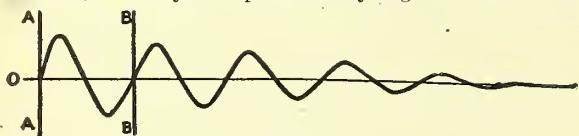


FIG. 2.

be noted that though the amplitude diminishes to zero, the distance from crest to crest remains constant. The oscillation represented by the curve included between the upright lines "AA," "BB," is termed the cycle, and the number of complete cycles in each second of time is called the frequency or pitch. If we know the distance traversed by the waves in a second of time, it is obvious that the wave length (*W/L*) can be found by dividing this distance by the frequency. Sound travels in air at the rate of about 1,132 feet per second. The lowest note audible to the human ear equals about 16 per second, and has a *W/L* of about 70 feet, while the highest note on the piano has a frequency of 4,138, with a *W/L* of about 3 inches. Vibrations of 20,000 can be heard as a very shrill note, and exceptionally sensitive ears can distinguish tones up to 30,000 per second. Sound waves proceeding from a point upon a smooth surface, such as the open sea, travel outwards in all directions with diminishing intensity, until the ear can no longer recognise the sound without

some artificial means of concentrating it. In general, this diminution of wave intensity varies inversely as the square of the distance, but fluctuations due to many other causes frequently mask the operation of this law, and produce unexpected results. Thus sound is often carried afar by the wind, and at the focus of a smooth, curved surface a faint whisper may be quite easily heard. The rapidity with which wave motion is transmitted depends on the density and rigidity of the medium. In water, sound travels at the speed of 4,700 feet per second, or more than four times as fast as in air, and consequently the wave length of any sound so transmitted is correspondingly longer than the *W/L* of the same pitch in air. Now it is found that when the aether is set into vibration the waves travel with the enormous velocity of 186,000 miles per second of time, whether they are the kind we recognise as light, or the electro-magnetic waves which, by certain apparatus, can be modified to render them audible or visible. A well-known instance of the latter effect is seen when ultra-violet rays, themselves invisible, fall upon sulphate of quinine their *W/L* is reduced and the salt glows with a pale blue light. It is the electro-magnetic or Hertzian wave with which we are concerned in our study of wireless. These waves have frequencies varying between 20,000 and 6,000,000, and appear to fill up, at least in part, the great gap between the vibrations known as sound and those which give rise to the sensation of heat. Incidentally it may be mentioned that all the high forms of radiation, the *x*-rays, ultra-violet, the colour rays of the luminous spectrum, and a long range of infra-red rays, being all conveyors of force, can be rendered perceptible as heat by suitable detectors. The Hertzian waves, from the frequencies above named, have *W/L* varying from about 50 metres to 30,000 metres. These rays are too low in pitch to be made visible, but when collected by an aerial wire can be made audible with the aid of the telephone. These rays when generated on the surface of the earth do not strictly obey the usual law of diminishing in the inverse ratio of the square of the distance, but, by what is believed to be an electrical condition of the upper air, are continually being deflected downwards, and so practically follow the curvature of the earth's surface. This peculiar behaviour, however, is a great help to wireless transmission, as the radiations are carried vast distances with comparatively little loss.

### Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

#### Monday, December 11

*Sheffield Pharmaceutical and Chemical Society*, Church House, St. James' Street, at 8.30 p.m. Mr. H. B. Hammond, M.P.S., will give a second paper on "Medicine and Pharmacy as they appear to the Novelist and other Writers."

#### Tuesday, December 12

*Ealing Pharmacists' Association*, Edens Restaurant, High Street, Ealing, W., at 8.30 p.m. Mr. Frank Browne or "China."

*Eastbourne Pharmacists' Association*, Chamber of Commerce Rooms, Terminus Buildings, at 8 p.m. Meeting.

*Lewis & Burrows, Ltd.*, Connaught Rooms, Great Queen Street, London, W.C., at 8 p.m. Annual staff dinner.

#### Wednesday, December 13

*Edinburgh Chemists', Assistants', and Apprentices' Association*. Whist drive and dance in Windsor House. Tickets 4s. 6d. each.

*Birmingham School of Pharmacy, Students' Association*, Imperial Hotel, Temple Street, at 7.15 p.m. Whist drive and dance. Admission by programme, 3s.

*Manchester Pharmaceutical Association*, Council Chambers, Houldsworth Hall, Deansgate, at 3 p.m. Discussion on "Trade Topics."

#### Thursday, December 14

*Chemical Society*, Institution of Mechanical Engineers, Storey's Gate, London, S.W., at 8 p.m. Prof. C. H. Desch, Ph.D., on "The Metallurgical Applications of Physical Chemistry."

*Glasgow Pharmacy Club*. Prof. Ralph Stockman, M.D., on "Modern Therapeutics."

*Newcastle-on-Tyne Pharmacists' Association*, Conny Hotel, Neville Street, at 8 p.m. Mr. Percy Mail on "Poachers and the Poached."

*Salford Pharmaceutical Association*, 40 The Crescent. Address by Mr. L. M. Parry (member of the Pharmaceutical Council).

## Corner for Students

Conducted by Leonard Dobbin, Ph.D.

Communications should be addressed "Corner for Students, 'The Chemist and Druggist,' 42 Cannon Street, London, E.C. 4."

THE powder distributed to students on November 7 contained eight parts by weight of potassium chloride, one part of potassium bromide, and one part of potassium chlorate. The calculated composition of such a mixture is :-

K	...	...	...	...	48.5
Cl	...	...	...	...	38.0
Br	...	...	...	...	6.7
ClO <sub>3</sub>	...	...	...	...	6.8
					100.0

The powder also contained, as impurity, a well-marked trace of an ammonium compound.

Samples of the powder were distributed to fifty students and thirty-seven reports were sent in for examination. The presence of potassium was reported in every case, and that of a chloride was overlooked in two instances only, but there were no fewer than twenty-three failures in the detection of the bromide and twenty-four in that of the chlorate. The trace of ammonium was missed by twenty-six students.

Although this exercise cannot be regarded as having been difficult one, it has not been well done. The results arrived at in last month's analysis showed clearly that many of our correspondents are deficient in their knowledge respecting the examination for acidic radicals, and the wide-spread character of this deficiency is even more apparent this month. The behaviour of the powder, in the preliminary examination, when heated alone and when heated with dilute hydrochloric acid and with dilute and concentrated sulphuric acid, indicated a variety of possibilities as regards acidic radicals; and from the facts that it dissolved readily in water and only gave reactions in the alkali group of metals, it should have been recognised that any analytical difficulties involved must necessarily be connected with the acidic radicals. A specially diligent search should therefore have been made to test the several possibilities, but this was seldom done. The pungent odours noticed on heating the powder alone and with acids suggested possible halogen and oxyhalogen salts, nitrates, nitrites, sulphites, etc., and caused most of our correspondents to test for one or more of these; but when a conclusion had been reached that a particular one was present, the possibility of others being present also was too often ignored and further search was given up. Thus, some who found a chloride, omitted to apply any test for a bromide or a chlorate, while others who detected the bromide omitted to test for a chloride. It was only in comparatively few cases that a chlorate was tested for, and in far fewer still was its presence established with certainty. How this could be done is described in the reply to a student below.

The presence of a nitrate was very commonly reported, either on the strength of the "ring" test or of the test by the liberation of iodine from potassium iodide, on reduction by means of zinc in the presence of dilute hydrochloric or sulphuric acid. The "ring" produced in the former test was due to bromine liberated from the bromide, while the liberation of iodine in the latter test was due to the oxidation of the iodide by the chlorate—a change which occurred whether zinc was added or not.

Many students seem to suppose that silver chloride and silver bromide can be sharply distinguished, and even separated, from each other by their different solubilities in dilute ammonia solution: this, however, is not the case. While silver chloride is readily soluble in dilute ammonia solution, silver bromide is certainly very much less so, but the freshly precipitated bromide is still so appreciably dissolved that the difference can afford no more than a rough indication, which is altogether insufficient for delicate analytical purposes. Many avoidable mistakes are due to misconception regarding this matter.

The presence of an ammonium compound was easily detected when the test with soda lime was carried out with some degree of delicacy, but the mere boiling of the

powder with solution of sodium hydroxide and testing for ammonia by smelling was too rough to ensure success. The slight, but nevertheless distinct sublimate formed when the powder was heated in an ignition tube and noted by numerous students, should have led to a specially careful examination for ammonium.

Boiling the powder with sodium carbonate in preparing a solution to be tested for acidic radicals was again carried out by a large number of students, notwithstanding the fact that the composition of the powder showed that, in this analysis, no useful end was thereby attained.

Many of the replies to correspondents below are applicable to others besides those to whom they are particularly addressed, and a perusal of these is therefore recommended to all students who sent in reports.

### PRIZES

The first prize for the best analysis has been awarded to :-

GEORGE M. SMITH, 10 Hartington Road, Buxton.

The second prize has been awarded to :-

T. C. F. PARKIN, Claremont, St. John's Road, Buxton.

*First Prize.*—Any scientific book that is published at a price not greatly exceeding fifteen shillings may be taken as a first prize.

*Second Prize.*—Any scientific book which is sold for about seven shillings and sixpence may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

### MARKS AWARDED FOR ANALYSES

#### 1. Correspondents who are unqualified :-

G. M. Smith (1st prize)	93	(OH) <sub>3</sub>	...	...	...	67
T. C. F. Parkin (2nd prize)	92	Cymro	...	...	...	66
Maria	81	Nylene	...	...	...	66
Caglio	79	Darwen	...	...	...	64
Analoid	77	Defoe	...	...	...	64
Zymase	76	Lady Jones	...	...	...	62
Chemical	73	Nil Desperandum	...	...	...	62
A. J. C.	72	Atrier	...	...	...	60
H. Bowness	69	E. P. N.	...	...	...	60
J. H. Davis	69	Uno	...	...	...	57
Ad Lib	69	Medio Tutissimus Ibis	...	...	...	56
Co-Optimist	69	Test	...	...	...	56
F. O. B.	69	Lactic	...	...	...	55
H. S. Blore	68	Plus 4	...	...	...	53
Epigynous	68	Floramye	...	...	...	51
Jerry	68	Diogenes	...	...	...	50
Rosie	68	Non libet	...	...	...	47
Caon	67	R. F. S.	...	...	...	38

#### 2. Correspondent who is qualified :-

A. M. M. ... ... ... 71

### TO CORRESPONDENTS

G. M. SMITH.—The necessity for boiling the powder with sodium carbonate, in order to prepare a solution to be tested for acidic radicals, did not exist in this analysis since no precipitate was produced on doing so.

T. C. F. PARKIN.—As you will see from the general remarks above, iodine was liberated from potassium iodide by an acidified solution of the powder, without the addition of zinc; hence a test for a nitrate could not be applied to such a solution by means of potassium iodide, zinc, and mucilage of starch. Read also the preceding reply.

MARIA.—The possible presence of a chlorate does not appear to have occurred to you. Had you heated the powder on charcoal in the preliminary examination, deflagration might have suggested a chlorate or a nitrate.

CAGLIO.—The "ring" reaction which you attributed to a nitrate was due to the bromide, for which latter you apparently omitted to apply any test. Contrary to your experience, we observed an immediate blue coloration on mixing the aqueous solution of the powder with starch mucilage, potassium iodide and dilute sulphuric acid. You overlooked the slight sublimate formed when the powder was gently heated in an ignition tube.

**ANALOID.**—Note that crackling is not a necessary accompaniment of the decomposition of a chlorate by heating.

**ZYMASE.**—Silver chlorate is soluble in water, hence, the fact that precipitate formed by adding silver nitrate is found to be insoluble in dilute nitric acid but soluble in ammonia solution, does not give any information as to the presence or absence of a chlorate.

A. J. C.—You could not prove the presence of a chlorate by merely showing that the powder, after strong heating, yielded a solution which gave the reactions of a chloride. Complete removal of the chloride should have preceded the heating designed to decompose any chlorate present. The reaction you observed was mainly due to chloride unchanged by heating.

H. BOWNESS.—You employ the formula for nitrous oxide where you probably intend nitrogen peroxide to be understood. Distinguish carefully amongst the formulae for the oxides of nitrogen.

J. H. DAVIS.—Although you proved the presence of a bromide quite satisfactorily, this cannot be stated regarding the chloride, as the evidence for the presence of the latter was inconclusive.

AD LIB.—Your blue glass bottle, if sufficiently intensely coloured, would, of course, serve quite as well as the customary cobalt blue glass in testing for potassium.

CO-OPTIONIST.—In describing the test for a nitrate you employ the formula for ferric chloride where you probably intend ferrous sulphate to be understood. If you actually used ferric chloride, note that this was the wrong reagent.

F. O. B.—On failing to obtain any precipitate with ammonium molybdate you note, as inference, that phosphate or arsenate is present. Probably this is merely a slip and that you meant to write "absent": the difference is, however, very material.

EPICYONOUS.—Your method of testing for a chlorate in the known presence of a chloride would be satisfactory unless in cases where the former was present in very small quantity. A recognised method consists in precipitating all the chloride, from a nitric-acid solution, by means of excess of silver nitrate and filtering; adding sodium carbonate in excess and evaporating to dryness; strongly heating the residue to decompose any chlorate and obtain chloride; extracting with water; acidifying the solution with dilute nitric acid; and then testing for chloride in the usual way, by means of silver nitrate. The final steps in this process may be used in the simple testing for a chlorate in the absence of other halogen compounds. We presume you must have overlooked the paragraph in last month's general remarks bearing on the preparation of a solution to be tested for acidic radicals by boiling with water and sodium carbonate. Neither in the case of last month's exercise nor in the present analysis was this procedure requisite or helpful.

ROSIE.—Since freshly precipitated silver bromide is quite appreciably dissolved by dilute ammonia solution, it is not possible to effect more than a very partial separation of silver chloride from it by aid of that reagent. Do not omit to give a summary of the constituents you detect.

DARWEN.—The decolorisation of permanganate by a solution of the powder to which sulphuric acid had been added was due to the bromide present—not to an oxalate.

DEFOE, NIL DESPERANDUM, and OTHERS.—The precipitate you observed on adding barium chloride in testing for acid radicals was most likely due to traces of sulphate introduced as impurity in the sodium carbonate you employed (unnecessarily) in preparing the solution to be tested.

LADY JONES.—The traces of iron and calcium you detected must have been impurities introduced in the course of your analysis.

E. P. N.—The trace of magnesium you reported was not confirmed by our experiments, in which a considerable quantity of the powder was employed. You do not appear to have applied any tests that could have revealed the presence of bromide or chloride.

UNO.—Apart from the observation that the powder yielded on heating in a dry tube, a white sublimate which might be due to an ammonium salt or to several other things, you do not give any reason why you suspected ammonium. Had you stated what test or tests you applied, it might have been possible to point out why you failed to obtain decisive evidence.

**MEDIO TUTISSIMUS IBIS.**—You will find a systematic preliminary examination to be a good, safe start in an analysis. More exhaustive testing for possible constituents and a fuller report would have enhanced the value of your work.

TEST.—No more than traces of water were expelled on heating the powder in a dry tube, and these were due, almost exclusively, to hygroscopic moisture.

LACTIC.—Although you report, quite correctly, the presence of a bromide and a chlorate, your evidence for these is not altogether convincing. You are entitled to take part both in the tournament and in the monthly competitions.

PLUS 4.—Your evidence for a hypochlorite was insufficient to prove this present.

FLORAMYE.—If you consider what reduction, in the chemical sense, means, you may conclude that a chlorate, in acid solution, would not reduce hydrogen sulphide, although it would oxidise it.

DIOCENES.—We cannot explain how you obtained reactions suggestive of those due to zinc (since no zinc compound was present) unless you mistook for zinc sulphide some traces of sulphur formed by the oxidation of ammonium sulphide.

APPRENTICE.—Study the general remarks and the various replies above, in which several of the mistakes you have made are referred to.

## Wills

MR. JOHN JAMES TAYLOR, 7 Cambrian Road, Richmond, retired chemist and druggist, who died on November 3, left estate valued at £532 5s.

MR. WILLIAM ALEXANDER KENNEDY, 2 Beechwood Avenue, Finchley, London, N., late cinchona planter, Government of Bengal, who died on July 17, left estate valued at £473 9s. 8d.

MRS. EVELYN ROSE HARRISON DAKIN, Britannia Lodge, Edwardes Square, Kensington, London, W., who died on August 20, 1921, left estate of the gross value of £3,670 3s. 6d., with net personality £3,475 11s. 4d.

MR. GEORGE WILLIAM MOON, chemist and druggist, 39 Galveston Road, East Putney, London, S.W., who died on October 2 last, left estate of the gross value of £1,179 14s. 3d., with net personality £1,102 7s. 5d.

MR. GEORGE SPEIGHT, Belmont, Park View Road, Bradford, governing director of Stephenson Bros., Ltd., who died on August 1, has left estate of the gross value of £81,979 11s. 4d., with net personality £74,809 15s. 11d.

MR. LOUIS JAMES CULLINGFORD, Ph.C., 3 East Dulwich Grove, London, S.E., who died on November 9, left estate valued at £425. Probate of his will has been granted to his son, Claude William Cullingford, 37 Erlanger Road, New Cross, S.E.

MR. HENRY NICHOLAS BARTLETT, Fairfield, Beer, Devon, formerly of Home Cottage, Abergwile Road, Carmarthen, retired chemist and druggist, who died on October 10, aged 103 years, left £38,382 12s. 10d. gross and £38,252 15s. 4d. net. The testator gives £50, household furniture and £1,650 for the purchase of an annuity to Mary Jane Kinder, an annuity of £100 to his son Henry Bartlett, M.D., £600 for the purchase of an annuity for his nephew Frederick Bartlett, £850 for the purchase of an annuity for his nephew George Henry Bartlett, £100 to Frederick H. C. Bartlett, £20 to R. A. Brockie, £50 to the Salvation Army, £50 to the Temperance Hospital, London, and the residue as to one-sixth each to his nephews Alfred Bartlett, Edward Ford Bartlett, and Albert Adolphus Bartlett, one-sixth to his niece Edith Louise Ball Grass, and one-sixth each to the children of his niece Beatrice Carr, and of his nephew Charles Bartlett.

"LONDON'S ENTERTAINMENTS" is the name of a brightly written and well-illustrated monthly periodical (3 Queen Square, W.C. 1, 2d.), giving particulars of Metropolitan entertainments and sporting fixtures.

## General Medical Council

The report of the meeting of the General Medical Council in the *C. & D.*, December 2, p. 772, took the proceedings up to November 29.

### PENAL CASE

The case of Mr. Samuel Leon Szpigner, who was charged with infamy in a professional respect, was considered *in camera* for three hours on November 29, and also occupied practically the whole of November 30. The case was unusual in that the conduct was of a very serious character. There were two K.C.'s engaged (Mr. Comyns Carr and Mr. Neilson), and at least thirty witnesses were called. In the end it was decided that Mr. Szpigner's name be erased from the Medical Register.

### THE DENTISTS' REGISTER

The names of Mr. G. H. Jones and T. W. F. Stewart were restored to the Dentists' Register, the occasion being taken to issue a fresh warning to dentists. This notice is more drastic than the previous one with regard to covering and advertising, claiming any title or description beyond that which a dentist possesses, and the use of any words or abbreviations conveying the impression that registration under the Dentists' Act, 1921, implies a qualifying examination.

The name of Mr. W. H. Fawcett was restored to the Medical Register.

### PHARMACOPEIA REPORT

On December 1 the Council met at 10.30 and devoted the morning to their own academic business. Six reports, two of them only verbal ones, and two containing no recommendation, were quickly despatched. The report of the Pharmacopœia Committee, introduced by Sir Nestor Tiraud, was as follows :

The number of copies of the "British Pharmacopœia," 1914, which were sold by the publishers between May 23, 1922, and November 25, 1922, was 1,137 copies. The number sold in the year ending November 25, 1922, was therefore 2,106. The total number sold since the date of publication is 43,491. The stock in hands is now insufficient to meet the current demand. The committee accordingly recommend that the Council should authorise the issue of a further impression of 5,000 copies. The opportunity will be taken to make the alteration respecting the melting-point of Acidum Salicylicum, which was sanctioned by the Council in June 1920.

### THE LATE SIR NORMAN MOORE.

A painful impression was made in the announcement by the President of the death of Sir Norman Moore. The President, in his address at the opening of the Session last week, paid a glowing tribute to the high qualifications of Sir Norman, who had just retired from the Council after a service of more than 21 years. A motion of condolence to the family was passed.

### OBLIQUE ADVERTISING.

A motion by Dr. Bolam, "That it be remitted to the executive committee to consider and report upon the prevalence of oblique or indirect advertising by medical practitioners in the lay Press," supplied the most matter for discussion brought before the Council, and was evidently much to their taste. Dr. Bolam brought with him a sheaf of newspaper cuttings of the last three months, which illustrated "the puff collateral," "the puff collusive," as well as the "puff oblique," and the object of his motion was, he said, to elicit some pronouncement from the Council on these developments in advertising, which might, if allowed to continue, undermine those traditions of self-respect and self-restraint which distinguished the profession, and would also be a source of danger to the public. Announcements of weddings, deaths, of changes of address were taken advantage of to mention the names and qualifications and professional addresses and telephone numbers of any doctors concerned. One was driven to the conclusion in the lay Press that practitioners were sometimes a party to the advertisements; for instance, in the correspondence column, where a medical man aired his views and opinions, and followed it with his name and qualifications, sometimes going so far as to refer to "his unusual and extended experience." The illness of a prominent person gave occasion to mention by name the "distinguished physician" who was attending him, or the "eminent surgeon" who conducted the operation. A more or less direct advertisement came from the doctor who announced that he received patients at a certain address where they obtained specific advantages. Although the name was not given, it could be readily be obtained at the box number given in the paper. A large class of advertisements emanated from the interviews in the Press with medical men, which ranged from a chronicle of experiences on liners at sea, where they performed operations by wireless, to the spread of cancer and the possibilities of its treatment. In the latter instance portraits and specific names were given, and sufficient guide as to where they might be found. Then there were comments on "the great Harley Street specialist," and "that famous authority, So-and-so," and the name and address given of another "just returned to town with apparatus not commonly possessed." Those who stood the highest in the profession, urged the speaker, walked most carefully, and would not have their names bandied about in public; and those most often quoted in public were not generally those whose opinions carried most weight in the profession or with the educated. The extension of this system of self-advertisement would be that the ablest men would be left behind, to the injury of the profession, and especially of the public. At the suggestion of the President, the motion was altered as follows :—

That it be remitted to the executive committee, in consultation with the legal adviser, to consider and report upon the expediency of amending the Council's warning notice with effect to canvassing and advertising so as to make its scope more clear and comprehensive.

Dr. Harvey Littlejohn seconded, and other speakers warmly supported the resolution, which was carried unanimously, Dr. Jenner adding his protest against the association of practitioners with advertisements of foods.

### ANOTHER PENAL CASE.

A last penal case, another instance of drunkenness, strayed into the programme of Friday morning. Mr. James Law, M.B., Venner Road, Sydenham, had had three convictions for drunkenness, and been fined at the Westminster and Greenwich police courts in 1913, 1921 and 1922. Mr. Law, a somewhat infirm old gentleman, offered his apologies, and promised to abstain from all stimulants for the rest of his life. He was admonished by the President in the usual way, and placed on probation till next November. The name of J. W. Springthorpe was erased from the Register, as he had resigned the one qualification, M.R.C.P., appearing to his name.

## Business Changes

BAKER & ROBERTS, chemists' valuers, have established a branch office at Estate Buildings, 7 St. Stephen's Street, Bristol.

ALFRED JOENSSON CO., INC., drug merchants, 33 Eastcheap, London, E.C.3, are removing to 7-8 Idol Lane, Great Tower Street, E.C.3.

MR. A. LISHMAN, chemist and druggist, Leeds and Redcar, has acquired the business of Mr. Charles F. Shewell, chemist and druggist, Market Place, Wetherby.

MR. CHARLES F. SHEWELL, chemist and druggist, Market Place, Wetherby, has taken over the business of Mr. J. E. Whitaker, chemist and druggist, The Parade Pharmacy, 47 Street Lane, Leeds.

S. W. VINCENT & CO. (proprietor, Mr. S. W. Vincent, chemist and druggist), chemists, Clapham, Croydon and Norbury, have purchased the business of Mr. C. E. Palmer, Ph.C., 302 Lower Addiscombe Road, Croydon.

LAZARD-GODCHAUX DYES CHEMICALS, LTD., Walter House, 422 Strand, London, W.C.2, have formed a new company, trading under the above name, and will carry on business in aniline colours and chemicals. Mr. G. Beltrami, who for so many years was associated with the Lazard Godchaux Co., Ltd., which has discontinued business, has accepted the post of managing director.

## Westminster Wisdom

By the "C. & D." Parliamentary Representative

### SAFEGUARDING OF INDUSTRIES ACT

#### Sodium Hyposulphite

Mr. Charles Roberts asked the President of the Board of Trade, on December 4, the minimum degree of purity of imported sodium hyposulphite above which the chemical is liable to duty under Part I. of the Safeguarding of Industries Act.

Sir P. Lloyd-Greame replied that sodium hyposulphite is dutiable when it is of photographic quality, or of still higher quality. Photographic quality hyposulphite is a well-known trade quality, but there is no fixed quantitative standard to which it must conform, and any hyposulphite which would be of good delivery against an order for sodium hyposulphite, "photographic quality," is dutiable.

#### Sulphocyanides

Mr. Foot asked the President of the Board of Trade, on December 4, whether he is aware that, though on April 6 aluminium sulphocyanide, barium sulphocyanide, and copper sulphocyanide were stated to be deleted from the list of articles scheduled as liable to duty under the Safeguarding of Industries Act, potassium sulphocyanide and sodium sulphocyanide are still retained in the list of scheduled products; and, if so, can he say for what reason the latter two have not been removed from the list and from liability to duty on importation.

Sir P. Lloyd-Greame replied that the items aluminium sulphocyanide, barium sulphocyanide and copper sulphocyanide were removed from the lists because certain observations made by the Referee in his decision in the cream of tartar case indicated that he would probably regard the three chemicals in question as heavy chemicals. These observations do not apply to potassium sulphocyanide and sodium sulphocyanide, and accordingly the lists were not amended in respect of these two substances.

#### Potassium Permanganate

Mr. C. Roberts asked the President of the Board of Trade, on December 4, if he is aware that eighty drums of permanganate of potash, which arrived at the Salford Docks, Manchester, ex steamship "Stad Utrecht," on October 2, are still held by the Customs pending decision as to liability under the above Act; that repeated requests have been made to the Customs for this matter to be decided, but no reply of a satisfactory nature can be obtained; whether he is aware that the heavy delay in these cases hampers or prevents trade; and will he endeavour to make arrangements at the Customs to have this Act, until it is repealed, carried out in a businesslike manner.

The Chancellor of the Exchequer (Mr. Baldwin) said he was informed that the consignment of permanganate of potash referred to in the question was declared on importation to be of commercial quality, and, as such, free of duty. As there was reason to doubt the accuracy of the declaration, tests of representative samples were taken, and, as a result, the goods were found to be of "R" quality and liable to key industry duty. Instructions have now been given as to the conditions under which release of the consignment may be obtained.

Mr. Foot asked the President of the Board of Trade, on December 4, whether he is aware that under the item R potassium permanganate, scheduled in the list of articles liable to duty under Part I. of the Safeguarding of Industries Act, the Customs are levying the duty on importations of potassium permanganate of commercial quality that is for use for industrial purposes; and, in view of the fact that the R quality is only meant to refer to the pure quality, will he instruct the Customs accordingly.

Mr. Baldwin replied that the answer to the first part of the question is in the negative. Duty is not charged by the Customs on permanganate of potash unless of R quality. If a claim for duty on a specific consignment is disputed on the ground that the goods are not of dutiable quality, it is open to the importer to apply to have the matter referred to a referee under Section 11 of the Safeguarding of Industries Act.

### Debate in House of Commons

The debate on the Address was resumed on December 4, when Sir John Simon moved an amendment regretting that no mention is made of the repeal of the Safeguarding of Industries Act and of other protective measures, which are raising prices, hampering trade, and limiting employment. He said the measure has worked so badly that it ought now to be brought to an end. After reviewing the growth of protective legislation, Sir John referred to Part I. of the Safeguarding of Industries Act and its avowed purpose of protecting key industries. It is absurd, he said, that instruments needed for the purpose of attending the sick and dental instruments should be taxed substantially under Part I. The next thing to be observed is that so soon as this Act was passed the Board of Trade proceeded, under the terms of the Act, to expand the Schedule of ill-assorted odds and ends into what was practically a complete chemical dictionary. He was assured the other day by one of the most eminent chemists in the country, who has had occasion to examine this Board of Trade list most carefully and thoroughly, that it would have taxed his ingenuity when this list was first introduced to have mentioned half a dozen chemicals which were not to be found within it. When this list was produced for the Board of Trade, after the Act was passed, instead of the chemicals being a selected number, which could be shown to have a plausible and direct connection with military preparation, a duty was found to be declared imposed on an enormous range of chemicals, amounting to over 6,000 in number. The big distinction known in commerce is a distinction between heavy chemicals and fine chemicals, and he submitted to the House, particularly to those members who served in the last Parliament, and to those who are Free Traders but are prepared for the time being to acquiesce in this Act, that it was not ever the intention of those who supported this Act that it should be extended so as to become a tariff on the whole chemical trade. Heavy chemicals imported into this country in very large quantities for industrial purposes, and manufactured in this country in large quantities in quite successful competition, come into this Schedule in enormous numbers, and in every case there is a duty of 33½ per cent. imposed upon them. He pointed out what is the real result of the working of this First Schedule. In the first place, the most overwhelming proof that a particular chemical in the list can only be taxed if you are prepared to do a serious injury to British trade will not get that chemical out of the list. A very distinguished and most impartial Referee sits to discharge his duty in endeavouring to deal with the list, and you might go before that Referee and prove that one of these 6,000 chemicals was essential for British industry, that its importation was necessary to keep down the price and to secure an abundant supply, but if it comes within this list all the argument in the world will not alter the fact that it is to have imposed upon it a tax of 33½ per cent. As an example he mentioned hyposulphite of soda. Hypo is used in enormous quantities, not only for the purposes of photography, but in connection with the cinema industry. Thousands of tons of it are used every year in this country. On what principle is hypo brought within this Schedule? It most certainly is not a synthetic organic chemical, and, in the ordinary acceptance of the word, he was assured it is not a fine chemical. The only reason why hypo comes within this Schedule and is exposed to this heavy tax is because the Schedule contains the phrase "analytical reagents." While thousands of tons of hypo are used in industry in this country every year, there is a certain amount, which is not more than one or two tons, which is used every year in the laboratories for the purposes of chemical reaction. The introduction of hyposulphite of soda was a well-established chemical industry before the war. It was a typical British pre-war chemical. It was an industry which was not only old-established, but it competed successfully with abroad. It is an industry which is not producing an article which is either a synthetic organic chemical or a fine chemical, and yet because there is a minute quantity of it which is used by chemists in the laboratory for a perfectly different purpose as a chemical reagent, the whole of this importa-

ton was put by the Board of Trade into this list for the purpose of taxation. It by no means stops there, and this is where he thought the information given to the Government is a little faulty. As the result of a protest that was made, they have put in front of hypo in the list the wonderful initial "R." The initial "R" was inserted up and down this Board of Trade list of chemicals because "R" happens to be the first letter of German adjective which means "pure." One gets some kind of notion here of where they got their list. The next question that arises is: "What do you mean in the case of hyposulphite of soda, when you say you are only going to tax it when it is pure?" At length the Board of Trade have given the ruling that in the case of hypo, not necessarily in every case, it is called pure and exposed to the tax if it is of photographic quality. A substantial part of the hypo imported into this country is of photographic quality and used in industry, either for photography or in connection with cinema films. The result of this legislation, therefore, is that various manufacturers of hypo in this country are now able to enjoy the advantage of a protective tariff of 33½ per cent. That is the way in which this precious Act of Parliament works when you endeavour to apply it in practice. I make good my point, that you may come forward and establish conclusively that an article which is put in this list for taxation is a thing which, in the general interests of industry, ought to be imported without tax, but it does not make the slightest difference to this Act, which proceeds to impose what is nothing more than a high protective tariff on articles of general use and convenience. The distinguished Referee would not be able to remove a chemical of that kind from the list, because, if it comes within the terms scientific organic chemicals or fine chemicals this Act of Parliament calls, and necessarily calls, for a tax being imposed upon it. As another example there arrived at the Millwall Docks, in London, a consignment of 24 lb. of an expensive compound known in the trade as an aroma, an essence—peach and apricot aroma. He was assured on the highest chemical authority that nobody considers that neither in the interests of the late war nor the prospects of the next war could we possibly regard such an aroma as a means of reaching our future enemy. The consignment was stopped by the Customs in pursuance of this Act of Parliament. They wanted to ascertain whether there was included in this compound any portion, however minute, of any one of these 6,300 chemicals, by the taxation of which we hope to win the next war. The importer pointed out that the stuff was costly, that it cost 11 guineas per lb. They took away two tins of the stuff in order to see what it was made of. They kept it for a considerable time. Meanwhile, the whole of the consignment was held up at the docks. When it was returned, it was short by just under 1 lb.—namely, 15½ oz. That is to say, the importer has lost a commodity which is worth something like £11. The mills of the Board of Trade grind slowly, but they grind exceedingly small, and it is quite gratifying to know that the safety of the country was secured and that victory in the next war was guaranteed because there was an intimation that there was a duty of 3s. 8d. to pay. This is happening in every port of the country, week after week. Consignments come in which have been purchased for industrial purposes. They are consignments which, on the face of them, are perfectly innocent, yet the whole of these consignments are held up in order to make it possible, with the assistance of chemists in London, to ascertain whether some small fraction of these particular compounds is not subject to the duty which this Act imposes. A third example was given as an illustration that these consequences are not due to clumsy or foolish administration. They are inherent in the structure of the Act itself. The letter "R" indicates a certain standard of purity. Duty is paid only if it is found that a particular consignment comes up to a certain standard of purity. Say that a business man imports certain standard chemicals used in industries—for instance, sal ammoniac or permanganate of potash—for industrial purposes and not in the least for the purposes of a laboratory, and imports them in large quantities, tons at a time. Permanganate of potash

or sal ammoniac—many other instances could be given—are liable to a tax if they satisfy this test indicated by the letter "R." That is to say, if they come up to a certain standard of purity. The importer does not know. He has not bought the things because he is going to deal with them under the prescription of the British Pharmacopœia. Many of these chemicals, though imported for industrial purposes, will sometimes attain that standard of purity. Sir John then referred to the delay that is caused by having to send samples of chemicals to the Government Laboratory to ascertain the quality and whether the chemicals are liable to taxation. He characterised as misleading the lists of British-made fine chemicals that have been put forward; he was assured that many were chemicals made abroad and re-crystallised here. Sir John finished his speech by comparing the President of the Board of Trade with the shop boy in the trial scene of *Bardell v. Pickwick*, left in charge of a chemist's shop with "the prevailing impression on his mind that Epsom salts means oxalic acid and syrup of senna, laudanum."

The President of the Board of Trade (Sir P. Lloyd-Greame), replying, referred to the plight of the country on the outbreak of war, due to the lack of essential articles. In regard to chemicals we lacked drugs of every kind—we had not developed the manufacture of all kinds of anaesthetics. It is utterly untrue to say that you can take a few selected chemicals and build up an industry that way. Everybody knows that if you are to have this industry built up; if you are to get the chemicals which are essential in peace and in war, the whole range of the chemical industry must be provided for. Many industries are being developed, including the manufacture of chemicals. The suggestion that merely a finishing process is carried on here is utterly without foundation. The range of production is growing steadily, and so is the quality. Scientific instruments are being bought here by foreign powers, in preference to those in cheap markets abroad. The quality of German chemicals is not necessarily good. He gave an example where a professor was supplied with some chemicals of German manufacture, in mistake for British articles, and who wrote and complained of the quality of British chemicals. The mistake was pointed out, and British chemicals sent of a much greater purity than those from Germany. Sir P. Lloyd-Greame further pointed out that chemicals made here are not necessarily dear, an instance being given where the German price was £50 a kilo. and the British price £1.

Sir Alfred Mond advocated an impartial inquiry as to the operation of the Act. Mr. Asquith referred to the Act as "an ill-gotten child," and other speakers referred to the German policy of cutting prices of dyes that are made here with the object of making the manufacture of dyes unremunerative in England. Mr. Neville Chamberlain gave extracts from the letter of a chemical manufacturer who stated that he has been enabled to make more chemicals under the protection of the Act.

On a division the motion was rejected, the Government majority being 62.

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ATKINS & SON, chemists, Market Place, Salisbury, have opened a new showroom for perfumery and toilet goods.

PRIDE OF WORKMANSHIP.—Sir Charles Higham, addressing the members of the City Livery Club recently, said: Your membership consists of the brains of your trades. Re-create pride in workmanship. Help to stimulate the manufacture of fine goods. Kill the making of "shoddy." Train young men and women for your trade. Protect the sale of honest wares. Do your brain task collectively, as the trade union does for the men and women who work with their hands. Pay managers high wages to run your guilds. Take the place of trade organisations run by secretaries at £400 a year or less. Buck up business. Don't trust to the local Chamber of Commerce to stir up trade—most of them haven't enough energy in their organisation to stir up the dust that rests on their board-tables. We need new vitality in every trade in the kingdom. Let us have pride in all we make. Let the guilds teach it to us once more. The time is now.

## Educating the Public

ON the occasion of the recent Chemists' Exhibition the Manchester Pharmaceutical Association circulated to the public a neatly printed pamphlet worded as follows :—

### PHARMACY AND THE PHARMACIST

THE mystical coloured bottles which fascinated us in our juvenile days when we passed the chemist's shop are a memory associated with a romantic world in which we then allowed our imagination to run riot. The chemist himself was a personality to whose credit we placed minute and extensive knowledge of all things in heaven and earth and in our own interior. Whether the children of this generation possess the same awe for the presiding genius of the gilded bottles on the mahogany shelves we very much doubt, but we older ones still regard with great respect the courteous chemist, who with a penny's worth of oxalic acid would give you all the information you needed as to its uses, and the most convincing warnings as to the care you should exercise in keeping this poisonous article out of the reach of the little ones. Ever since the days of Paracelsus, the chemist has been the maker of medicines. Previous to those times, mankind was more dependent upon herbs than upon any other substances for the relief of his ailments, but Paracelsus set a new fashion, and taught the physicians, that is, taught those who were not too conservative to learn, that what we now call chemicals furnished most potent and valuable remedies.

In the two succeeding centuries in England, the class of men who furnished the practitioners of medicine with their medicaments were apothecaries. And these apothecaries, by gradually taking upon themselves the functions of physicians, gradually came to be regarded as medical practitioners themselves. In this way it came about that the men of those days who dealt in drugs and chemicals became the antecedents of the chemists and druggists, or pharmacists, of to-day.

### RESTRICTION OF SALE OF POISONS

In the first half of the nineteenth century poisoning, accidental and criminal, became so common that the authorities were compelled to take some steps to check the evil. The Manchester Police Act of 1844 embodies one of the first attempts to do this; for in section 201 it enacted that arsenic and prussic acid should only be sold to persons over twenty-one years of age, and then only when the name and address of the purchaser, and the purpose for which the poison was required, were entered in a book in the presence of a witness. This was a principle which was applied to the whole of the country, in the case of Arsenic, by the passing of the Arsenic Act of 1851.

Fortunately for the community, the pharmacists of the earlier part of the nineteenth century included in their body several public-spirited men, like Jacob Bell, who felt that the public needs in the matter of the handling of poisons were not to be adequately met by mere mechanical safeguards, but made a demand for a specially trained body of men with a sound knowledge of drugs and poisons to undertake the distribution of the more numerous and virulent poisons which were finding their way into public use. As a consequence, Bell and his coadjutors succeeded in obtaining a Royal Charter for the incorporation of the Pharmaceutical Society of Great Britain. This was accomplished in 1842, and this Society in another ten years managed to get on the Statute Book the Pharmacy Act (1852), which established examinations in Latin, Botany, Materia Medica and Pharmaceutical and general Chemistry for those who intended to follow the calling of a pharmaceutical chemist.

This important enactment, however, did not fulfil the hopes of its promoters, because it contained no provision for the restriction of the sale of poisons to these educated and trained pharmaceutical chemists. There still existed free trade in poisons. Some steps had been taken to restrict the sale of Arsenic, but this did not suffice, because some most powerful substances had become available through the discoveries which pharmacists had made in their chemical examinations of Opium, Nux Vomica, Belladonna, etc., whereby Morphine, Strychnine, Brucine and Atropine, etc., were brought into use in medicine and were also at the disposal of the would-be suicide and murderer. After the passing of the Arsenic Act there was another epidemic of criminal poisoning cases, of which one of the most famous was that of Palmer of Rugeley. This case and other similar ones ultimately led to the passing of the Pharmacy Act of 1868, in which were sections providing for the reservation of the sale of certain scheduled poisons by those persons who had passed examinations in Latin, Chemistry, Botany and Materia Medica as well as in the compounding of medicines.

From that time to the present, the schedule has steadily grown. This has been due to the large increase in the extent of chemical knowledge which has produced so many synthetic

drugs of great potency and value, as well as to the improvement of numerous preparations which medical science is constantly demanding at the hands of pharmacists.

How great has been the measure of protection that pharmacists have exercised for so many years for the protection of the public in this matter of the control of poisons, it is impossible to estimate.

### PHARMACISTS AND THE PHARMACOPOEIA

That there was in existence in the middle of the nineteenth century a body of men trained in Botany and Chemistry, and acquainted with the preparation of medicines, was a state of affairs which prevented the Medical Act of 1862 being, in one respect at least, decidedly premature. This Act brought into existence a British Pharmacopoeia with standards for medicines which were to be supported by the law seeing it was published under the authority of Parliament. It is very questionable if the intentions of the legislature could possibly have been carried out in the absence of the pharmacists of those times. It is also questionable whether any subsequent British Pharmacopoeia would have been of much value without the continuous assistance pharmacists have given to the Pharmacopoeia Committee of the General Medical Council.

### NATIONAL HEALTH INSURANCE ACT

The high value of the scientific training of this body of men became much more evident when in 1911 they were appointed the official dispensers of drugs under the National Health Insurance Acts. This arrangement inspired the public mind with confidence in the quality of the medicaments with which it was to be supplied, inasmuch as it had had years of experience of the character of and ability of pharmacists whose training in the Schools of Pharmacy and our University Colleges was a guarantee of their knowledge in addition to that of the compulsory examinations they had to pass before securing their diplomas.

### DANGEROUS DRUGS ACT

The law dealing with the sale of poisons has been much more stringent since the War, because of the increasing prevalence of the taking of Morphine and Cocaine by persons whose nerve force has become depraved by causes of psychic origin.

These new regulations have greatly increased the responsibility of pharmacists, who have to observe meticulous care in registering every transaction in connection with the scheduled poisons and their preparations.

The Manchester Chemists' Exhibition is probably the first occasion on which the public has had an opportunity of seeing something of the equipment which goes to the training of the pharmacist, and to the furnishing of his pharmacy with the multitudinous drugs and preparations which he is expected to provide for his clients at a moment's notice. The close and important relationship which the medical practitioner and the pharmacist have to one another and to the public cannot fail to be appreciated by the latter as a consequence of this Exhibition.

## Deed of Arrangement

**Cranston, Edward**, chemist, 314 Sangley Road and 100 Culverley Road, Catford.—Dated November 29; filed December 1. Liabilities unsecured, £451; estimated net assets, £250. Trustee: H. Carey-Grattan, 22 Suffolk Street, Pall Mall East, London, S.W. Among the creditors are the following: John Bell & Croyden, Ltd., £23; Butler & Crispe, £17; Oppenheimer, Sons & Co., Ltd., £35; Pharmacists' Mutual Supply Co., Ltd., £17.

## Gazette Bankruptcy Acts

### RECEIVING ORDER

**WILSON, S.**, Burnham Market, Norfolk, chemist and druggist.

**DANGEROUS DRUGS STATISTICS.**—To collect the information required by the League of Nations with regard to each country's requirements of narcotics, the Italian Minister of the Interior has issued a circular to all the Prefects of the kingdom, requesting them to obtain from each owner of a pharmacy, and also from all pharmaceutical laboratories situated in their respective provinces, particulars concerning the production and consumption of opium, morphine, heroin, dionin, cocaine and their salts, and extract of Indian hemp, during the years 1915 and 1921.

## Irish Druggists' Examination

An All-Ireland meeting of chemists and druggists and registered druggists was held in the rooms of the Chemists' and Druggists' Society of Ireland, Belfast, on November 29 to consider the present position of registered druggists in Ireland. The circular sent to the entire trade contained the following as a basis for discussion at the meeting :

"That the Registered Druggist Examination be discontinued; that all chemists and druggists and registered druggists on the register be allowed to enter for a modified examination in compounding; that all assistants and apprentices who have served their time, or are serving their time, with a chemist and druggist or registered druggist, on completion of term be allowed to enter for the Pharmaceutical Licence Examination without serving any further apprenticeship; that the period allowed for modified examination be five years; after that all druggists who have not passed this modified examination in compounding remain as a registered druggist."

The circular also asked members unable to attend if they were willing to give full powers to the Special Committee appointed by the Chemists' and Druggists' Society, as follows :—*President* : Mr. Fred Storey; *Secretaries* : Messrs. W. E. Wilson and W. J. Rankin; *Treasurer* : Mr. S. Gibson, J.P.; Messrs. S. Nevin, J. D. Carse, S. Suffern, F. T. Smith, J.P., and R. Kells to negotiate with the Committee set up by the Pharmaceutical Council. There was a large attendance, the Northern provincial towns being well represented, but owing to conditions of transport, there were few Southern representatives, but many letters of approval were received from the South. Mr. Fred Storey, President of the Chemists' and Druggists' Society of Ireland, occupied the chair. Mr. W. J. Rankin intimated that 520 circulars had been sent out. A number had been returned by the Post Office, and it was evident that the register of the Pharmaceutical Society was in a hopeless state, for it contained the names of men who were dead long ago, and men whose change of residence had not been notified. They had had many replies approving what had been done by the Committee so far, with the help of Mr. Storey. The replies came from Dublin, Belfast, Limerick, Cashel, Drogheda, Arva, Maghera, Ballybay, Castleblaney, and elsewhere, and were all favourable except one from Belfast.

### HOW THE MOVEMENT BEGAN

The chairman said that the letters gave an idea of the feelings of the country members, and proceeded to give a summary of the agitation that had taken place. He said a Committee met some years ago when it was arranged to get members to become Associates so as to get representation on the Pharmaceutical Council. A fight for representation on the Council was commenced. He (Mr. Storey) was successful, and when he got talking to the members of the Council he found they were willing to listen to what he had to say, and soon, when a vacancy arose, against all precedent, Mr. Suffern, an R.D., was co-opted to the Council in place of a Ph.C. Pharmaceutical chemists were next invited to a meeting in Belfast, and the position of the registered druggists was discussed at that meeting. As a result of that meeting the Chemists' and Druggists' Society met a committee of the North Irish Pharmacists' Association and discussed the whole position. The scheme he had prepared was gone into and an amended scheme for presentation to the N.I.P.A. was drawn up. That was never presented because of a strike, and a keen council election intervened. The registered druggist's position was next brought up at the Pharmaceutical Council by him and discussed in an informal manner, after he had been overruled at the meeting proper, but they agreed to hear him after the Council. He put forward a scheme like that talked over with the N.I.P.A., and he got great encouragement, several of the members stating they were in favour of the abolition of the R.D. grade. The executive of the Northern pharmacists then asked them to discuss the position under the Northern Parliament. The Law Committee was sent, and the question of the registered druggist was raised at this meeting at which a breeze started as the original scheme had never

been put to the general meeting of the N.I.P.A. The registered druggist's grade was again brought up informally at the annual meeting of the Council, 1921. A notice of motion was next brought up by him at the annual meeting of the Pharmaceutical Society of Ireland, 1922, to set up a committee. He was supported by Northern pharmacists at that meeting, and with the result they got their committee. The matter was accordingly brought up at the Council meeting in October, 1922, and the committee was appointed, consisting of the President, Messrs. D. M. Watson, M.P.S.I., James Michael, M.P.S.I., James A. Doyle, M.P.S.I., J. C. Culbert, M.P.S.I., A. Wilson, M.P.S.I., Samuel Suffern, R.D., and Fred Storey, R.D. The committee was, on the whole, sympathetic, and objection was taken to its composition in some quarters. The names of Messrs. Ryan, Nugent and Fitzpatrick were suggested for addition to the Committee, but they declined to act. He thought there should only be one grade. There was only one in England. A great deal could be done by quiet talks with pharmacists, who, when they heard their case, almost invariably said there was a great deal in it. The matter was largely a Northern one. He wished a free, frank and open discussion on the points raised.

### DISCUSSION

THE CHAIRMAN expressed pleasure at seeing so many strange faces and so many country members present. It was difficult to fix a day to suit everyone, for although Wednesday was the half-holiday in Belfast it was not so in all the country towns.

Mr. WILLIAM TAGGART asked was the proposal started by the Pharmaceutical Council or the registered druggists?

THE CHAIRMAN replied that they could distribute the responsibility equally. A great many pharmacists were anxious something should be done to settle up the question.

Mr. W. J. BUSBY said he was quite satisfied to abide by whatever decision the Committee arrived at.

Mr. R. CAMBRIDGE, J.P. (Carrickfergus), asked the chairman if he thought a proportion of the druggists would be able to pass the examination. At his time of age he would not like to have to commence to study botany, Latin, Greek, and that sort of thing. The present examination was very severe for young men in country druggists' shops, and he was glad to hear it might be done away with.

THE CHAIRMAN replied that his idea of the modified examination was an exam. in compounding only. It would not be fair to ask R.D.'s on the register for many years to go in for examinations now on *materia medica*, etc. The Committee would, however, report to the Council.

Mr. McROBERTS (Belfast) urged the Committee to fight hard for the compounding alone.

Mr. WILLIAM TAGGART suggested every R.D. should have the title M.P.S.I. if the chemists wanted to be rid of them without any examination at all.

THE CHAIRMAN said this scheme was only put up as a basis of discussion, and he could not accept any amendment. There was no possible chance of the druggists getting the degree without some examination, and no Government would pass a Bill to enable people who could not do so to compound prescriptions.

Mr. R. HASTINGS, J.P. (Newcastle), said that in the past the Pharmaceutical Society had neglected the interests of the R.D.'s altogether, for every grocer in the country was selling poisons. No matter what happened, the R.D. examination should be abolished. It served no purpose whatever because one could get a licence from the county council, which could be stretched as far as they liked. It all depended on the conscience. They would probably have to set up eventually a Pharmaceutical Society for Ulster, as a Governor-General and Privy Council were to be appointed for the North, and in that event they would have the matter largely in their own hands.

Mr. F. T. SMITH, J.P. (Antrim), said the public looked on the druggists as second raters and the pharmacists as cultured gentlemen, although the former often made more money. The time for advance had come and the only

safe course was along the line of a modified examination in the way of compounding; and a fee. He was in favour of the abolition of the druggist's examination, and if Dublin did not respond they had a Government of their own in the North which could be approached.

Mr. R. SPENCE (Castleblaney) spoke in favour of the abolition of the R.D. grade, which could be a decided step in the right direction, and better for pharmacy generally.

Mr. T. UNSWORTH (Ballynahinch) said it was a very rare prescription they got in the country. If the Pharmaceutical Society would stand by the druggists more than they do it would be well. Grocers that he knew sold poisons, and it was time something was done in the way of abolishing the R.D. qualification. The time had come to put up a good fight.

Mr. S. J. SMILEY (Castelewellan) and Mr. TAGGART (Ballymena) supported the views of Mr. Hastings and Mr. Smith.

Mr. ORR (Lisburn) asked how would they get apprentices if the R.D. examination were abolished. He was in favour of the proposals put forward. England and Scotland scored by not having the two grades.

THE CHAIRMAN said they would not let the R.D. examination be abolished unless they got a quid pro quo. The question of apprentices was safeguarded in the scheme.

Mr. S. McDOWELL (Belfast) said, although he was an old man, he was prepared to go in for a modified examination.

Mr. J. D. CARSE (Belfast) cited the success of the efforts of the chemists who practised dentistry in having their rights safeguarded. The Committee would do the very best it could, and would win with their support.

Mr. S. GIBSON, J.P., congratulated Mr. Storey on the hard work he had done for the trade, and they would trust him to carry this matter to a happy issue. Their demands were reasonable and fair. The existing Act of 1390 was the best that could be got at the time, but they always had the ideal of one of pharmaceutical chemists in the interests of the public.

Mr. S. SUFFERN (Belfast) and others having spoken, Mr. R. Cambridge moved "That this meeting of chemists and druggists, and registered druggists representative of all Ireland, endorse the action of Mr. Fred Storey at the annual meeting of the Pharmaceutical Society of Ireland, held on October 2, 1922, and at the meeting of the Council held in October, and pledge its full support to the Committee set up by the Chemists' and Druggists' Society, to carry out the negotiations on the basis set out on the circular with the sub-committee appointed by the Pharmaceutical Council with a view to an amicable settlement of the whole question."

Mr. HASTINGS seconded the resolution, speaking of the chairman as a real "live wire," and the resolution was passed unanimously.

THE CHAIRMAN said he had only done what he thought best for the interests of pharmacy, and if possible it should be done in conjunction with the Council in Dublin. The Pharmaceutical Society was anxious to have a new Pharmacy Act, and wanted the support of the R.D.'s in carrying that out. On the motion of Mr. Hastings, seconded by Mr. Spence, it was resolved to establish a guarantee fund and receive subscriptions to defray expenses which may be incurred. The meeting closed with a hearty vote of thanks to the chairman on the motion of Mr. W. J. Rankin, seconded by Mr. W. E. Wilson.

**OUTLOOK FOR GLASS-MANUFACTURING INDUSTRY.**—Addressing the Sheffield Society of Glass Technology recently, Dr. W. E. S. Turner said that in many of the methods of glass manufacture Britain leads the European Continent. The plant laid down in many of the factories of this country was much more up-to-date than that on the Continent. The Bohemian glass industry had been famous for centuries for the production of glass of all types, but it was now in a serious position owing to the financial conditions and the high tariff wall. It would be very difficult for the manufacturers of Bohemia to renew competition with this country for some considerable time.

## Associations' Winter Session

**Leeds.**—The Leeds Chemists' Association held a meeting on December 5 for the reorganisation of the Associates' Branch or Section of the Association. The President (Mr. H. Gillegan) opened the meeting by outlining the scheme adopted by the Council of the Association and based on the lines proposed by the Secretary in his paper on April 6. The following officers were elected: The President and secretary of the Association, *ex-officio* members, the Chairman and Vice-Chairman of Section, Hon. Secretary and Treasurer, Miss E. Tetley; Committee: Misses D. Chang, F. Armitage, D. Stringer, Messrs. Norton, Robinson, Simpson Marks, Gillegan, and Jones.

**London (W.).**—A meeting of the Western Pharmacists' Association was held at 192 Oxford Street, W., on November 30, the President (Mr. W. E. D. Shirtliff) in the chair. In the course of routine business a brief discussion arose on the sale of animal-gland products, the President, Mr. Melhuish and Mr. Mallinson emphasising the desirability of caution on the part of pharmacists. The remainder of the evening was occupied by a lantern lecture by Mr. G. E. Marfitt, Leicester, on *Window-dressing*. The lantern was lent and cleverly manipulated by Mr. H. Mills, Dulwich. Mr. Marfitt said that window-dressing was a science and an art: without it, Press advertisements lost a great deal of their power. Most of those present, he believed, were in business for the same reason as he was—to get out of it as soon as possible. A shop-window should be suitable to the neighbourhood, seasonable, capable of attracting and holding the attention of the passing public, creative of a desire to possess, and able to make the public think that place the best place and "now" the best time. Numerous examples of window-dressing were shown, and questions followed the lecture. A vote of thanks closed the proceedings.

**Walthamstow.**—A meeting of the Walthamstow Pharmaceutical Association was held on November 20, when a discussion on *Window and Counter Dressing* took place. The subject was opened by Mr. A. J. Thomson, of Hoe Street, who said the first consideration should be the locality of the shop itself, as what would be a good selling window in one district would be out of place in another; also the nature of the window and the fittings should be considered. He preferred outside lighting, or screened lights inside. He always started with a definite plan and priced each article. The best results came from shows with plenty of material, but not overdone, and using a few showcards only. Occasional displays of catch-lines, such as vacuum flasks, hot-water bottles and well-advertised, profitable proprietary lines, paid. Most of the members present took part in the discussion.

## South Eastern Federation

THE Federation of South-Eastern Counties Pharmacists' Associations held the annual general meeting on November 29 at Lewes, when the officers were elected as follows:—Chairman, Mr. H. C. Browne (re-elected); Vice-Chairman, Mr. C. J. Yates; Treasurer, Mr. F. F. B. Wimhurst (re-elected); Secretary, Mr. D. Marchant (re-elected). The meeting tendered their high appreciation of the work done on behalf of the Federation by Mr. H. C. Browne and the other officers. The following resolution from Brighton was carried unanimously:—"That the Pharmaceutical Society should consider the question of apprenticeship and publish for guidance (1) the ideal length of indentures, (2) the educational standard required, (3) the time to be allowed for study, (4) the remuneration to be given, and other details. The meeting is convinced that improvement in pharmacy depends upon recruiting the right type of youth for apprenticeship."

THE FRENCH ACADEMY OF MEDICINE will hold its special annual meeting on Boxing Day. It will be specially devoted to the memory of Pasteur, and will thus be the first of the numerous centenary functions. Dr. Calmette will speak from the point of view of hygiene; Dr. Widal, medicine; M. Barrie, veterinary science; Dr. Delbet, surgery; M. Delezenne, general biology.

## British Empire Exhibition

THE organisation of the British Empire Exhibition (1924), incorporated, is proceeding regularly. Offices have been taken at 16 Hobart Place, London, S.W.1, and a news service has been established at 16 Grosvenor Gardens, W.1. A growing demand for space at Wembley is reported by the Exhibition authorities. As the Exhibition is being planned on a scale far greater than that of any previous exhibition held in this country, it has not yet been found possible to allocate any definite area to a particular trade. Committees of experts are at work organising a complete representation of the various industries or sections for which they are responsible. These committees will also recommend to the Executive Council the allotment of space within their particular sections. It has been decided that the task of finally allotting space shall not be undertaken before the New Year, and that—subject to the preference to be given to guarantors—all applications received up to the end of the present year shall be given full consideration. Application forms must be returned not later than December 30. The importance of intending exhibitors sending in their applications before the end of December lies in the necessity of the Executive Council being informed whether or not adequate space has been provided. Already there is some talk of one of the two large halls having to be extended beyond the area at present planned. These buildings—the Machinery Hall and the Industrial Hall—cover a total floor area of 884,000 square feet, which is five times greater than the exhibiting space at Olympia. This relates to United Kingdom exhibits only; the Dominions will have their own pavilions, and will undertake their own organisation of exhibits. In Manchester a local committee is at work, while Scotland has an office of its own in Glasgow.

Besides the work of the regional committees for the groups of Colonies and Protectorates, and the technical committees, consisting of leading members of the learned societies and of each branch of industry, the organisation of exhibits in certain special sections is being undertaken by large industrial associations and scientific societies. Chemical and alkali exhibits will be organised by the Association of British Chemical Manufacturers, with the aid of the Society of Chemical Industry. Rubber and other industries will also be specially organised. The President of the Board of Trade has appointed Sir William Joynton-Hicks to investigate differences alleged to have arisen concerning the policy of the Executive Council with regard to the use of materials and supplies of Empire origin, and also with regard to the concession for amusements and other matters. From the general regulations just issued we learn that among the articles excluded from the exhibition are:

All dangerous or harmful substances, including medicaments, patent medicines, etc., of which the ingredients are unknown. Spirits, alcohols, oils, essences, corrosive substances, and such substances as are likely to injure other exhibits or cause inconvenience to the public, will only be accepted on the condition that they are contained in vessels of a suitable nature and of moderate dimensions.

Another regulation provides that exhibits must be on view during the hours the exhibition is open, and that exhibitors "will be required adequately to stock their stands." The awards are to be divided into five grades. The Executive Council, the Chairman of which is Lord Morris, includes the names of Sir A. S. Benn (President of the Association of British Chambers of Commerce), Sir Anthony Bowlby (President of the Royal College of Surgeons), Sir Harry Britain, Mr. Wyndham R. Dunstan, Sir Herbert Morgan, Sir William Peat, and Sir Humphry Rolleston (President of the Royal College of Physicians).

### CLASSIFICATION OF EXHIBITS.

The exhibits are to be divided into 150 classes. These classes are arranged in forty-five groups, and the groups subsumed under the following sectional headings:—

- A.—Food of the Empire (Groups I. to V.).
- B.—Raw Materials of the Empire (Groups VI. to IX.).
- C.—Communications of the Empire (Groups X. to XIV.).

- D.—Machinery and Implements of the Empire (Groups XV. to XXII.)
- E.—Manufactures of the Empire (Groups XXIII. to XXIX.)
- F.—Homes of the Empire (Groups XXX. to XXXIV.)
- G.—Education, Science and Art of the Empire (Groups XXXV. to XXXIX.)
- H.—Recreations of the Empire (Groups XL. to XLII.)
- I.—Defence of the Empire (Group XLIII.)
- J.—Colonisation and Social Economy of the Empire (Groups XLIV. and XLV.)

The following list (which does not profess to be exhaustive) gives an idea of the scheme of classification:

Group	Class	Exhibit
V. . . . .	12 . .	Infant food.
	15 . .	Vinegar, olive oil, spices, mixed condiments.
	18 . .	Cordials, aerated waters.
VI. . . . .	19 . .	Arsenic, antimony, and bismuth . . . mineral substances used in the chemical industries.
	21 . .	Dye woods, barks (cork) . . . lac.
IX. . . . .	26 . .	Sponges, isinglass, cod, etc., oils, spermaceti, ambergris.
	52 . .	Laboratory apparatus, plant used in the manufacture and production of soaps, glycerin, vegetable, and essential oils, hydrogen peroxide, synthetic dyestuffs, pharmaceutical products, water-softening plant, infusion apparatus, extract, agitators.
XXII. . . . .	56 . .	Plant used in the manufacture of glass and glassware.
	58 . .	Plant used in the preparation of rubber, gutta-percha, and balata articles.
XXVI. . . . .	74 . .	Heavy and industrial chemicals, fine chemicals, pharmaceutical materials, and products, essences, cellulose products, products of petroleum, domestic chemical products.
	75 . .	Natural dyes, synthetic dyes.
XXVIII. . . . .	76 . .	Soaps, concentrated perfumes obtained by solvents, toilet waters, sachets, dentifrices, cosmetics.
	80 . .	Photographic apparatus, photomicrography.
XXIX. . . . .	82 . .	X-ray apparatus.
	84 (b). .	Apparatus for sterilising instruments, hernial appliances.
XXXII. . . . .	88 . .	Linseed oil, cotton oil, castor oil, etc.
	89 . .	Vulcanised rubber, medical, surgical, scientific articles.
XXXIII. . . . .	106 . .	Thermometers, pyrometers, thermometers.
XXXV. . . . .	107 . .	Application of Jenner's, Pasteur's and Koch's discoveries, analysis of mineral and medicinal waters.
XLIV. . . . .	116 . .	Learned societies, scientific expeditions
XLV. . . . .	141 . .	Weights, measures, and coinage in use in different parts of the Empire.
XLV. . . . .	144 . .	Systems of apprenticeship, results.
	146 . .	Risks attending various trades, employers' liability, insurance.
	147 . .	Relation between wages and the cost of living, profit-sharing, auditing of accounts.

## Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration, see "The Chemist and Druggist" Diary, 1922, p. 277.

- (From "The Trade-marks Journal," November 15, 1922.)
- "THE STUFF OF THE DAY," with device of dogs supporting shield bearing letters "T.D.M.," etc. ("T.D.M." disclaimed).
  - "KIT-KAT"; for veterinary medicines (2). By H. Tinker, 238, Bolton Road, Irlams o' the Height, Manchester. 423,634; 430,100.
  - "FERTATO"; for fertilisers (2). By Bitterlings, Ltd., 1, Freeth Street, Nottingham. 429,628.
  - "FLITSO"; for all goods (2). By the United Alkali Co., Ltd., Pier Head, Liverpool. 429,631.
  - "ZUMOL"; for medicated tubular wads for use in catarrh (3). By Zumo Co., 76, Bedford Court Mansions, Bedford Avenue, London, W.C.1. 427,382.
  - "MIRA"; for an aperient water and salts (3). By Everett & Co., 5, Lloyd's Avenue, London, E.C.3. 427,459.

## Festivities

### Presentation to Mr. Hagon

A REPRESENTATIVE assembly of local pharmacists, their wives and friends met at the Royal Hotel, Cardiff, on November 29, to honour Mr.

Albert Hagon, who recently retired from the Pharmaceutical Society's Council. The President of the Cardiff Pharmacists' Association (Mr. A. J. Harris), who occupied the chair, mentioned that this occasion of the annual gathering was an appropriate one to do honour to the founder and first President of the Association, Mr. Hagon, and however much they regretted his decision not to seek re-election to the Council, it was their pleasant duty to ask him to be the recipient of a token of their appreciation of his services. Mr. Harris then outlined Mr. Hagon's work on behalf of pharmacy since he was elected to the Council eighteen years ago. Mr.

J. Reynolds (Mountain Ash), in supporting the chairman, referred to the times prior to the formation of the Cardiff Association, when pharmacists in the same locality did not know one another. He spoke of the way in which Mr. Hagon had stood up for Welsh interests in pharmacy, and hoped he would be with the association for many years to come. Mr. Leo Joseph, J.P. (Cardiff), vice-chairman of the Retail Pharmacists' Union, said how pleased he was to be there to support the toast of Mr. Albert Hagon, who in local pharmaceutical educational matters was the first to bring out the idea of a school of pharmacy. The chairman then handed to Mr. Hagon the illuminated address, which was read to the company by Mr. Joseph, the text beginning as follows: "Resolved, that this meeting of the Cardiff and District Pharmacists' Association is desirous of expressing its sincere regret at the retirement after a period of eighteen years of Mr. Albert Hagon from the Council of the Pharmaceutical Society of Great Britain, and of placing on record its grateful thanks for the excellent and public-spirited services so unselfishly rendered." Mr. Hagon thanked the speakers for the kind sentiments, and expressed his sincere appreciation for this token of esteem. He spoke of the early days prior and subsequent to the formation of the local association. They had now firmly established the Welsh College of Pharmacy in the Technical College. Describing the difficulties in obtaining anyone from Wales to contest a seat for the Pharmaceutical Council, Mr. Hagon eulogised the work of the late Mr. Robert Drane and the late Mr. David Anthony. He (the speaker) had fought three elections and been returned unopposed on two occasions. In conclusion, Mr. Hagon paid a tribute to all the members of the Cardiff Association, who had so steadfastly assisted him in his work. (Applause.) Several toasts followed. An excellent musical programme was arranged, selections being rendered by Miss Gronow, Messrs. Philip Williams, S. W. Hague, and Reg. Philips, Mr. P. Hunt acting as accompanist.

### Bath Chemists Entertained

Members of the Bath Pharmaceutical Association and Pharmacy Club spent an enjoyable time at Fortt's Restaurant on November 30, when the annual dinner was held. Many ladies attended. The President of the Association (Mr. H. C. Broad) was in the chair, and had on either side of him the two guests of the evening, Mr. D. J. Williams, F.C.S., Ph.C., Principal of the Bath and West of England College of Pharmacy (retiring President), and Mr. J. W. Cooper (retiring treasurer). After the loyal toast, "Our Guests"—Messrs. W. J. Williams and J. W. Cooper—were toasted at the instance of the President, who was

followed by Mr. Hallett. The President said when he first entered Bath nine years ago one of the earliest friends he made was Mr. Williams, and he did not think that he could have made a better friend. Mr. Broad said the idea of that gathering arose from a chance remark. Five fathers in Bath who had sons or daughters who were being educated in Mr. Williams' college were together, and one remarked that it would be quite fitting



MR. ALBERT HAGON



THE PRESIDENT'S NEW BADGE

when their children had all passed that they should entertain Mr. Williams to a little dinner. That reached the ears of others of the brotherhood, they wanted to join in, and that night they saw the result. The five pharmacists desired to ask Mr. Williams' acceptance of a little token of their esteem and regard, and therefore Messrs. Wilson, Hallett, Jenkin, Moore and himself asked him to receive a gold wristlet watch. The Chairman went on to refer to Mr. Cooper. He acknowledged the friendliness of Mr. Cooper, and speaking of his services as treasurer, said they could not allow him to resign his office without some little acknowledgment of the way he had conducted their affairs for them. He asked his acceptance of a silver-mounted pipe and tobacco pouch, and hoped he would be spared many years to enjoy them. Other toasts were cordially honoured, including those of the "Pharmaceutical Society," the "Chairman," the "Students," and the "Ladies." In the course of the evening Mr. W. H. Hallett asked the acceptance by Mr. Thompson and Mr. W. Cooper of boxes of cigarettes from the six successful Bath students—the Misses G. Broad, Q. Jenkin, Messrs. G. H. Moore, A. Wilson, L. R. Broad, and W. H. Hallett. This presentation was marked with loud applause. During the evening the Organic Choral Party (from the College) sang three items. Other contributors were Messrs. E. F. Pidgeon and E. Fowles, Misses E. K. Olds and Q. M. Jenkin, Miss E. Edmunds, Misses K. F. Norris and M. H. Norris, Mr. D. J. Williams, Mr. T. B. Jones.

**PRICE OF JAVA CINCHONA.**—The director of finances has fixed the average market price for cinchona at 11 cents per unit (instead of 11.2 cents), for the purposes of calculating import dues, from October 7, 1922.

## Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in grading and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

### 42, Cannon Street, E.C.4, December 7

ALTHOUGH there are signs that business is slackening off with the waning year, a fair amount of interest is shown in Mincing Lane produce. Among the price changes is easier feeling in menthol and mint oil, both on the spot and to arrive; Japanese slab camphor is also easier. Balsam Peru and Canada balsam are dearer. Caraway seed is again higher, and dill seed is easier. Canary seed slow of sale, and fennel is very scarce. Ergot, Chinese pills and turmeric are easier. Castorum at auction was weaker, and met with little demand. Opium is steady. Turpentine is much lower. There has been more movement among spices during December than for several months past, the chief demand being for home consumption, while exports to the Continent have also improved; pepper, pimento, ginger and cloves have been in request. American orders for Zanzibar cloves, an unusual feature, has upset the calculations of operators, and prices are likely to be unsettled over the remainder of the year. Among the rates of exchange, the advance in the pound sterling in terms of U.S. dollars to \$4.66 $\frac{1}{4}$  (which is the highest point since July 1919) is a healthy feature.

Higher	Firmer	Easier	Lower
Balsam Canada Balsam Peru Caraway Seed Cassia Oil Cronella Oil Ethyl Sulphonate Iridine Olive Oilseed Oil	Coconut (desic.) Coconut Oil (Ceylon) Cottonseed Oil Formaldehyde Gum Acacia Lactic Acid Palmarosa Oil	Amidopyrin Anise, star, oil Camphor (Jp., ref., slabs.) Dill Seed Eruynumin Ergot Galls (Chinese) Mint Oil (Jp.) Petitgrain Oil Phenazone Potash bromide Resorcin Turmeric Wax Carnauba Wax, paraffin	Ammon. benzoate Benzoinic acid Cajuput oil Castorum Citric acid Cloves (Zan.) Cocao butter (Amst., auct.) Emetine bis-muth iodide Menthol (spot & c.i.f.) Patchouli oil Pitch Sodium benzoate Soya oil (deod.) Turpentine Vanillin
	Steadier		
	Palm kernel oil Sodium chloride		

### Cablegram

NEW YORK, December 5.—Business is quiet. Iodine advanced to \$4.50, iodofrom to \$5.75, potassium iodide to \$3.60, sodium iodide to \$4.00 and strontium iodide to \$3.90. Balsam Peru is dearer at \$1.90; balsam Canada has advanced to \$10.75 per American gallon, and Oregon balsam is firm to \$1.40 per American gallon. Short buchu is dearer at \$1.00, and refined camphor has advanced to 96 c. Mexican sarsaparilla is cheaper at 3 c.; buckthorn bark has declined to 6 c., and stramonium leaves to 7 c. per lb.

### Exchange Rates on London

The following is a list of Continental and other exchange rates against the pound sterling on London prevailing at 4 p.m. on Wednesday :

	November 29	December 6
Paris, cheque ..	fr. 65.50—65.60	65.25—65.35
Brussels, cheque ..	fr. 71.00—71.10	71.00—71.10
Berlin ..	marks 38,000—38,500	37,000—38,000
Amsterdam, cheque ..	fl. 11.41—11.42	11.42 $\frac{1}{2}$ —11.43 $\frac{1}{2}$
Italy, sight ..	lire 94 $\frac{1}{2}$ —95	91 $\frac{1}{2}$ —92 $\frac{1}{2}$
Switzerland ..	fr. 24.32—24.35	24.19—24.22
Constantinople ..	pstrs. 800—850	800—850
Madrid, sight ..	pes. 29.37—29.42	29.45—29.47
Lisbon, sight ..	escudo 24d.—24d.	24d.—24d.
Vienna ..	kr. 300—315,000	305—325,000
Greece ..	drch. 308—318	510 sellers
Yokohama, T.T. ..	yen 25 $\frac{1}{2}$ d.—25 $\frac{1}{2}$ d.	25 $\frac{1}{2}$ d.—25 $\frac{1}{2}$ d.
New York, cable..	\$ 4.52 $\frac{1}{2}$ —4.52 $\frac{1}{2}$	4.56 $\frac{1}{2}$ —4.56 $\frac{1}{2}$

### Crude Drugs, etc.

AGAR-AGAR.—Spot sales of No. 1 Kobé strip have been made at 6s. 3d. per lb. To arrive, January-March shipment is quoted at 4s. 3 $\frac{1}{2}$ d. c.i.f.

ANTIMONY.—There is not much interest in new importations and the tone in foreign refined is easy, holders of spot lots being sellers at £25, while shippers would doubtless accept £23 c.i.f. The demand for crude is idle, very little business having been done of late and the quotation stands at around £17 per ton, c.i.f.; spot is £17.

BALSAMS.—B.P. Copiba is steady at 1s. 8d. per lb. on the spot. Peru is very firm at 8s., and Tolu can be had at 3s. 7d., with some asking more up to 4s. Our New York cable reports an advance to \$10.75 per U.S. gallon in Canada balsam. The spot price has also advanced in sympathy and a fair amount of buying has been done, commencing at about 5s. 3d. per lb., but now 6s. 6d. appears to be the lowest.

CAMPHOR (CRUDE).—Chinese is firm, with sellers quoting at 3s. 5d. per lb. on the spot, and forward business includes November-December business at 3s. 2d., c.i.f.

CAMPHOR (REFINED) is a trifle easier, Japanese slabs offering at 3s. 10 $\frac{1}{2}$ d. per lb. Forward offers are also easier, November-December shipment being quoted 3s. 9d., c.i.f.

CASTORUM.—The annual sale of the Hudson's Bay Co. was held on December 6, when 3,326 lb. was offered, against 2,649 lb. in 1921. Of the Hudson's Bay variety, 914 lb. was sold, and of Oregon about 350 lb. The sale was poorly supported, with the result that prices were lower all round. On the other hand, the offerings of Oregon were small, viz., 1,625 lb., against 2,932 lb. in 1921. It should be noted that at least 50 per cent. was brought forward from last year's sale, so that the quality was superior to the usual standard—the pods being drier. The buying chiefly was on account of France and Germany, and there was practically no demand by the home trade. The small quantity of pickings was quickly cleared at full price, up to 9s. per lb being paid against 10s. for thirds. There appeared to be very little speculative buying, but we understand that several lots of the better grades were sold privately after the sale. Below will be found particulars of the quantities offered, and price fetched, in comparison with 1921:—

		Offered lb.	Sold lb.	Price, 1921	Price, 1922
YF ..	Firsts..	67	—	—	—
	Seconds	310	—	—	—
	Thirds	1,003	282	18s.	10s.—10s. 6d.
	Pickings	60	60	10s.—11s.	8s.—9s.
MR ..	Seconds	52	52	38s.	17s. 6d.
	Thirds	232	150	15s.	10s.
	Pickings	34	34	11s. 6d.	8s.
CANADA	Firsts..	74	—	—	—
	Seconds	138	—	—	—
	Thirds	656	—	—	—
	Pickings	114	114	10s. 6d.	7s. 6d.—8s.
	Cuttings	148	148	6s. 6d.—7s. 6d.	4s.
NW ..	Firsts..	46	—	—	—
	Seconds	128	—	—	—
	Thirds	190	—	—	—
	Pickings	74	74	10s. 6d.	7s.

Of the Oregon, firsts were held for 24s., seconds realised 10s., thirds 7s. to 7s. 6d., pickings 4s. to 4s. 3d. How prices have declined in recent years may be realised by the fact that fair dry pickings were sold in the present auction at 7s. to 9s., against the "record" of 195s. per lb. in 1910.

CHAMOMILES.—Offers from Belgium are more plentiful, but prices are very irregular, ranging from 450s. up to 525s. per cwt., according to quality. Buying is quite hand to mouth.

COCOA BUTTER.—At the Amsterdam Auction on Tuesday, Van Houten's D quality sold at 77.53c., B at 75.02c., and Blooker's at 75.14c. per half kilo, being lower.

ERGOT remains flat with spot sellers at from 1s. 10d. to 1s. 10 $\frac{1}{2}$ d. per lb.

GALLS.—Chinese are easier, ordinary shape offering at 64s. and plum shape at 69s. To arrive, November-December shipment, is quoted at 57s. and 60s. per cwt., c.i.f. terms.

GUM ACACIA remains firm, usual Kordofan sorts offering at 75s. to 77s. 6d., and cleaned at 80s. to 85s. To arrive, new crop is quoted at 62s. and 65s. per cwt., c.i.f.

HONEY continues steady, offers including new crop New Zealand at from 75s. to 80s. per cwt.; new crop Californian at from 65s. to 72s. 6d.; white set Cuban at 65s., biscuit set at 60s., and pale setting at 45s.

IPECACUANHA remains firm, fair Matto Grosso selling at 7s. per lb. Arrivals continue small, and good stout quality is by no means plentiful.

LIQUORICE ROOT.—Natural can be had at 27s. 6d. to 30s. per cwt., and cut natural at 37s. 6d. Cut decorticated is 87s. 6d., and whole 80s. per cwt. on the spot.

MENTHOL is quiet and the turn cheaper, Kobayashi-Suzuki offering on the spot at 42s. per lb. Offers to arrive are also easier, including November-December shipment at 33s. per lb., c.i.f. The s.s. "Hyson," from Japan, has brought 74 cases, and the "Suwa Maru" 50 cases.

MERCURY.—Despite the rather divergent terms quoted, the tendency of the market has been harder. The stocks available are said to be smaller again and holders are not pressing sales—in most cases asking £12 5s. per bottle. There is not much business possible at below this, although some buyers profess to be able to get all they want at £12. On the other hand, some dealers are wanting as much as £12 10s. for small ready lots. A report from the Continent states that the price quoted by the Spanish mines is 341 pesetas, delivered nearest railway station. There have been no arrivals during the week.

MUSK.—Old-fashioned natural Tonquin pod is quoted on the spot at from 90s. to 95s. per oz. as to seller. Thin blue-skin Tonquin pod is 120s.

NUX VOMICA is slightly easier, Cochin offering at 27s., c.i.f., and Madras at 23s. 6d., c.i.f. London.

OPIUM is steady, 12 per cent. druggists' offering at 15s. per lb. in case lots on the spot. The same test to arrive from Constantinople is quoted at 13s. to 13s. 6d. per lb., c.i.f. A fair amount of business has been done lately both to the Continent and the U.S.A.

CONSTANTINOPLE, November 23.—The arrivals and stock from November 16 to 23 were as follows:—Druggists', 851 cases and 67 cases respectively; "softs," 61 cases and 119 cases; Malatia, 13 cases and 8 cases. Sales of opium for Europe and America have increased during this period to 225 cases, of which 218 were druggists' quality, sold at 1,200 to 1,450 piastres per oke, and 7 cases "softs" at 1,650 piastres. The market is still unchanged with an active demand. Arrivals from the Interior are not lacking, but important purchases for Europe and America prevent the increase of local stock, and holders thus always manage to obtain the desired prices.

RUBBER.—After advancing 1½d. per lb. last week, the market is easier. The increase was due to substantial buying orders from America for the near position, and the general expectation is that the present level of prices will be fully maintained in the near future. The subsequent profit taking on the part of speculators has checked the upward tendency, and prices for the time being are fairly steady in the neighbourhood of 1s. 2d. per lb. for standards. Deliveries were the lowest for some time past, viz., 380 tons, and arrivals totalled 1,324 tons, with an increase of 944 tons in the stocks. The home demand continues satisfactory. Quotations (Wednesday, 5 p.m.): Standard No. 1 crêpe and ribbed smoked sheet, spot and December, 1s. 1½d. per lb.; January-March, 1s. 2½d.; April-June, 1s. 2½d.; July-September, 1s. 3½d. per lb. Hard, fine para again dearer at 1s. 1½d., soft fine 11½d., Caucu ball 11½d.

SAFFRON.—New crop Valencia is now afloat and importers are quoting at the rate of 110s. to 120s. per lb., ex warehouse. Since prices were first mentioned values of new crop at the source have advanced by 11s. to 12s. per lb. owing to the presence of important buyers. Old crop has been sold on the spot at 105s. to 112s. 6d.

SHELLAC.—The spot market has been steady but quiet, usual standard TN orange quality offering at 345s., fine orange is 460s., good second orange 400s., AC cakey 325s., and GAL 295s. The sales for delivery include December at 335s. and March at 292s. 6d. to 295s. To arrive TN for December-January shipment is quoted at 300s. c.i.f.

STARCH PRODUCTS.—Japanese farina is quiet on spot at 14s. 6d. per cwt. Dutch is steady on the spot at 15s. 3d., and for December shipment 13s. per cwt., f.o.b., is quoted. English rice starch crystals is steady at 40s., and Continental is 34s. Maize starch powder is 14s. 1½d. on spot. Dutch dextrin on the spot is 26s. 9d. for superior and 23s. for No. 2. American maize is 17s. 6d. per cwt.

TURMERIC has been selling at rather easier prices. Fair Madras finger is offered at 30s. to 32s. 6d. per cwt., Cochin at 22s. 6d. to 25s., and Bengal at from 22s. 6d. to 25s. per cwt. on the spot.

WAX (BEES') remains firm, Jamaica offering at £6 15s., bleached Calcutta at from £8 5s. to £8 10s., East African £5 to £5 2s. 6d., Abyssinian at £4 10s. to £4 15s., and Moroccan at £4 15s. to £5 per cwt.

WAX, CARNAUBA is easier, fatty grey offering at 82s. 6d. and chalky at 80s. per cwt. on the spot.

#### Seeds, Spices, etc.

CHILLIES.—To arrive, sales of Mombasa for December-January shipment have been made at 90s. per cwt. c.i.f. New York. Spot values are from 130s. to 140s. At auction 26 bales Zanzibar were bought in at 135s.

CLOVES.—The "Modasa" has brought 2,775 bales and the "Bampton Castle" 2,025 bales from Zanzibar. Part of these supplies have been offering on the spot at fluctuating prices, viz., 8d. to 10d. to 9½d. per lb., closing at 9d. The sales to arrive include October-December at 6½d. to 6½d. c.i.f., November-January at 6½d., and January-March at 6½d. to 6½d. per lb. c.i.f. The receipt of American orders has upset market calculations, and prices are likely to be unsettled for a month or so. The week's statistics show that 238 bales were landed and 238 delivered, leaving a stock of 392 bales against 1,708 bales in 1921 and 8,697 bales in 1920.

COCONUT (DESICCATED) is firmer, with sales of fine at 36s. 6d. and medium at 37s. per cwt. on the spot. To arrive, December-January shipment is quoted at 36s. c.i.f., and January-February shipment has been sold at 36s. c.i.f.

PIMENTO is firmer with sales at 2½d. per lb. on the spot, and at 19s. 6d. c.i.f. to arrive. The week's deliveries were 239 bags and the landings nil, leaving a stock of 7,607 bags, against 24,142 bags in 1921 and 38,214 bags in 1920.

SEEDS.—The following are current spot quotations, except where otherwise indicated: Spanish ANISE is unaltered at 78s. per cwt., and Russian is 71s. CANARY SEED is unchanged but very slow of sale. Dutch CARAWAY SEED is much dearer at 145s. per cwt. on the spot, and Morocco is now unobtainable. CORIANDER SEED is very firm. Sound is available at 60s. per cwt., and wormy is from 40s. to 50s. per cwt., as to quality. Maltese CUMIN SEED is 130s. per cwt., and Morocco 125s. DILL SEED is 21s. 6d. to 23s. 6d. as to quality. FENNEL SEED is very scarce at 57s. 6d. Manchurian HEMP SEED is easier at 14s. 3d. Morocco LINSEED is 22s. per cwt. on the spot, and English MUSTARD SEED is unchanged at from 30s. to 35s. per cwt.

#### Essential Oils

A better demand for Ceylon citronella oil has improved the spot price, which is about 2d. per lb. above last week's quotation. Cassia is also dearer, and American wormseed is higher. The c.i.f. price of palmarosa has advanced. Star anise oil is dull and easier. Japanese mint and Paraguayan petitgrain are cheaper. Cajuput and patchouli oils have declined.

ANISE (STAR).—"Red Ship" on the spot is dull and easier at from 2s. 2d. to 2s. 2½d. per lb. The price to come forward is easier at 1s. 11½d. c.i.f.

ALMOND.—Fair spot sales of genuine essential oil have been made at 15s. 6d. per lb. Up to 16s. 6d. is asked according to holder.

BERGAMOT.—The price to arrive is unchanged at from 13s. 9d. to 15s. c.i.f. according to brand and time of shipment. Spot sales have been made at 14s. to 14s. 6d. per lb. The demand recently has been fairly active.

BOIS DE ROSE (FEMELLE).—On the spot 10s. per lb. is about the average quotation. For quantity this can be shaded in some directions.

**CAJUPUT** is lower on the spot at 2s. 9d. to 3s. per lb. for "as imported." Up to 3s. 9d. is quoted.

**CAMPHOR**.—On the spot white essential has been sold at 8s. per cwt.

**CASSIA**.—Spot is dearer at 8s. 9d. per lb. for 80 to 85 c.a. for the little that is offered. There are buyers to arrive at 6s. 3d. to 6s. 6d. c.i.f. afloat.

**CEDARWOOD**.—American is unchanged at from 1s. 5d. to 1s. 6d. per lb.

**CINNAMON**.—Ceylon leaf is unchanged at from 4d. to 4½d. per oz., according to seller, and for shipment at 3½d. c.i.f.

**CITRONELLA**.—Ceylon is dearer at 2s. 4½d. per lb. on the spot and 2s. 2½d. c.i.f. to arrive. Java is also higher at 3s. 2d. to 3s. 3d. per lb., with shipment quotation at 3s. to 3s. 2d. c.i.f.

**CLOVE**.—English distillers quote about 6s. per lb., for December-January delivery, but fair sales have been made at less. Cloves, however, have advanced since. Continental distillate is quoted at 5s. 6d. c.i.f.

**DILL**.—East Indian on the spot has been in fair demand, at steady rates; 13s. per lb. is about the value.

**GERANIUM**.—Bourbon on the spot is obtainable at 26s. per lb.

**GINGERGRASS**.—"Insoluble" is nominal on the spot at 7s. 6d. per lb.

**LEMON**.—The price to arrive is about steady at from 2s. 9d. to 2s. 11d. c.i.f. On the spot, values are on the same level.

**LIME**.—West Indian distilled is unchanged at from 1s. 10d. to 2s. per lb.

**MANDARIN** is offered at from 15s. 6d. to 16s. per lb., c.i.f.

**MINT**.—Japanese dementholismed Kobayashi-Suzuki is nominal at the easier rate of 8s. 6d. per lb. November-December shipment is also cheaper at 8s., c.i.f.

**ORANGE**.—The price of Sicilian for shipment is 8s. 3d. to 9s. per lb., c.i.f. On the spot, 9s. to 9s. 6d. is quoted.

**PALMAROSA** is dearer to arrive at 15s. 6d. per lb., c.i.f.

**PATCHOULI**.—Recent shipments of Penang oil are offered at cheaper rates on the spot at from 30s. to 35s. per lb., according to seller. Mysore is 37s. Arrivals of 26 drums and 2 cases have taken place at London from the Straits.

**PEPPERMINT**.—American natural tin oil is steady at 13s. to 13s. 6d. per lb., with business at both prices.

**PETITGRAIN**.—Paraguayan on the spot is easier at 6s. 9d. to 7s. per lb. An arrival in London of 35 cases has taken place from Paraguay.

**SASSAFRAS**.—Genuine natural American is unchanged at 5s. per lb.

**SPERMINT**.—American is unchanged at 14s. per lb., on the spot.

**WORMSEED**.—American is dearer at 16s. 3d. per lb., on the spot.

#### Pharmaceutical Chemicals, etc.

The reports to hand this week point in most instances to a continuance of the recent slight improvement in sales. Moreover, prices are gaining a steady tone, which seems to be due to the spot stocks becoming somewhat exhausted and the firmness on the Continent, where much higher prices are now being asked. Barbitone and methyl sulphonal are quoted at higher prices. Citric acid and benzoates are lower and bromides are weak.

**ACETANILIDE** is quoted from 1s. 4d. to 1s. 6d. per lb., according to quantity, and very few sales are being made below these rates.

**AMIDOPYRIN** remains dull and the price on the spot is perhaps a shade easier at 13s. 9d. to 14s. per lb.

**AMMONIUM BENZOATE** has gone cheaper along with other benzoates; the spot price is now at about 4s. 9d. to 5s. per lb.

**ASPIRIN** is firmly held, and the market tends to advance a little. Good brands are seldom to be picked up under 2s. 10d. to 3s. per lb., and the demand is brisk.

**BARBITONE** is again much dearer this week, with nothing offering below 11s. 3d. to 11s. 6d. per lb.

**BENZALDEHYDE** (.03) stands unchanged at 3s. on a dull market.

**BENZOIC ACID** has dropped back after the recent advances, and is now quoted on spot at 2s. per lb.

**BENZONAPHTHOL** is steady but in no great demand at 5s. per lb.

**BROMIDES**.—The position on spot is deplorably weak, and would be even more so if it were not for the prices on the Continent being at higher rates. Ammonium, about 8½d. Potassium, crystals and granular, about 7d. to 7½d. per lb. Sodium, crystals and granular, about 7½d. to 8d. per lb. Even these rates might be shaded in isolated cases.

**CALCIUM LACTATE** is a bright market, and is very steady at 2s. 3d. per lb. Spot is scarce at the moment.

**CHLORAL HYDRATE**.—Duty paid on the spot is selling in better quantities in the region of 4s. 2d. per lb., and slightly less for quantities.

**CITRIC ACID**.—B.P. crystals on spot are difficult to sell at the declared value of 1s. 7d. per lb.; cheaper offers for delivery in the New Year are on the market.

**COCAINE**.—Hydrochloride is quoted at from 14s. to 15s. per oz., according to quantity and seller.

**CREOSOTE B.P.** is at the unaltered value of 3s. per lb. on a quiet market.

**CREOSOTE CARBONATE** is declared on the spot up to 10s. 6d. per lb., but there are sellers at less.

**EMETINE BISMUTH IODIDE**.—Makers' prices are cheaper by about 7s. per oz., offering at 36s. per oz.

**EUONYMIN** is cheaper, makers quoting green or brown at 21s. per lb.

**GUAIACOL CARBONATE** remains lifeless, with the nominal value at 8s. per lb.

**HEXAMINE** seems to be firmer at the better price of 2s. 9d. to 3s. per lb., with nothing offering below that price.

**HYDROQUINONE** is not wanted; dealers quote on spot in the region of 3s. 6d. per lb., and slightly less for cwt. lots.

**LACTIC ACID** is scarce, firmer and in good demand, with up to 2s. 9d. per lb. paid.

**METHYL SALICYLATE** is steady, with the demand fairly good at about 2s. 3d. per lb. and 2s. 1d. for cwt. lots in carboys.

**METHYL SULPHONAL** is quoted dearer on the spot on account of a similar move on the Continent; market is uninterested at 14s. 6d. to 14s. 9d. per lb.

**MILK SUGAR** is in steady demand, the average price of finest B.P. powder being 100s. per cwt.

**PARAFORMALDEHYDE** continues to be very irregular on quotations, which vary from 2s. 9d. up to 3s. 3d. per lb.

**PARALDEHYDE** is firmly held at from 1s. 4d. to 1s. 6d. per lb. on spot; imports would cost more on the present Continent price f.o.b.

**PHENACETIN** is steady and moderately active, with the spot price maintained at 4s. 9d. to 5s. per lb.

**PHENAZONE** at the slightly easier price of 6s. 9d. to 7s. per lb. is now steady.

**PHENOLPHTHALEIN**, after the recent sharp advances, holds steady at 5s. to 5s. 3d. per lb. on spot, and the lower price has been freely paid.

**POTASSIUM PERMANGANATE** remains steady and active on spot at 7½d. to 8d. per lb. for imported.

**RESORCIN** is quoted down to 5s. 9d. per lb. on a neglected market.

**SALICYLIC ACID** is steadily maintained at 1s. 4d. per lb., with sales reported satisfactory.

**SALOL** is declared at 2s. and upwards per lb.; not much in the way of business about.

**SODIUM BENZOATE** is now offered on spot and to come forward at 1s. 10d. per lb., which shows a sharp fall in the price on the week.

**SODIUM SALICYLATE** has improved a little and powder is now at 1s. 10d. to 2s., and crystals at 1s. 11d. to 2s. 1d. per lb., according to brand. A fair amount of business has been done.

SULPHONAL continues idle, with the declared value in the region of 14s. per lb.

TANNIC ACID is in slightly more demand at from 3s. 4d. to 3s. 6d. per lb. for B.P. *Lewis*.

TARTARIC ACID on the spot is not at all brisk, with the price weak in the region of 1s. 1½d. to 1s. 2d. per lb.

TERPENE HYDRATE is held firmly at 1s. 9d. despite the poor demand.

THYMOL is quoted nominally by spot holders at 18s. 6d. to 20s. per lb.

VANILLIN is cheaper at 25s. per lb. on the spot, and small lots have been sold up to 26s. 6d.

#### Industrial Chemicals, etc.

*London, December 5.*

BUSINESS has been confined to sales of small dimensions, and has not been quite so active of late. With the end of the year in sight consumers are naturally refraining from replenishing their stocks. The market is showing no material change, and seems on the whole fairly steady, and is likely to remain so for the remainder of the year.

ACETIC ACID remains a strong market, with the recently quoted rates fully maintained on spot, with business good : 80 per cent. technical, £41; 80 per cent. pure, £43; 98 per cent. glacial, £65 per ton, in casks and demijohns, ex wharf, London.

ACETONE.—The position on spot is much as last reported, with practically no material available and nothing much coming forward in the near future. The declared value is £130 per ton and upwards for British Government specification.

ALUM.—Lump in bags on the spot is available with little call at £13 per ton.

ARSENIC is extremely firm. Some more important business has been put through lately by Continental producers on terms at much above those generally mentioned for white Cornish powder, which seems more or less nominal at about £57. Business for home consumption is limited to urgent needs. We understand that some 200 tons of Grecian have just been shipped from Greece to this side, and sellers now call the price upward of £61 c.i.f. It is reported that there has been an active demand for sheep-dip. Red arsenic is inquired for, but is very scarce.

BARIUM CHLORIDE has been in better inquiry, and remains steady at £20 per ton and upwards for 98 to 100 per cent.

COPPER SULPHATE.—There has been a fairly general improvement in the export demand, which has been facilitated by the less unfavourable rates of exchange and the tone of the market is towards firmness. Business is now hardly possible, as anything under £27 f.o.b. for casks, less 5 per cent. f.o.b. Liverpool, while some makers demand fully £27 10s. Exports have begun to show improvement, as usual at this time of year. The cost of raw material is less than it was some time back, but makers' costs in other directions have not been reduced. Germany is apparently a more important competitor in the export markets.

CREAM OF TARTAR on the spot is now steady, with offers in ton lots at 93s. per cwt. and slightly more for small quantities of B.P.

EPSOM SALTS continue to move but slowly at £6 5s. per ton, in bags.

FORMALDEHYDE is offering at slightly higher rates on spot, and the position in America is very strong. On spot supplies are limited and firm at £83 to £85 per ton, ex wharf, London.

GLAUBER'S SALT is unaltered on a dull spot market at £5 per ton, in bags.

LEAD PRODUCTS.—Dealers in imported offer on c.i.f. terms, London, red lead at £32 10s., and white lead at £36 per ton. There is not much doing.

LITHOPONE has been in a little better demand, with the selling price in the region of £22 per ton c.i.f. London.

NICKEL SULPHATE.—The British makers reduced prices given in last week's report holds good at £47 per ton,

delivered and f.o.b. for home and export trade respectively for single and double salts.

OXALIC ACID stands at the unchanged price of 7d. per lb. on spot. The Referee's decision is not yet published.

POTASH CAUSTIC (88 to 92 per cent.) seems to be unsteady, with a slight tendency to weaken. Spot is still offered at £29 10s. per ton, with little doing.

POTASSIUM CARBONATE is a good market, and current rates are firm for spot and forward positions : 90 to 92 per cent., £27 to £27 10s. per ton; 96 to 98 per cent. 30s. to 31s. per cwt.

POTASSIUM CHLORATE on the spot is unsettled, with the price easy at 3½d. per lb.; for delivery in the New Year lower offers are current.

POTASSIUM PRUSSIATE holds firm, and has been active with spot supplies restricted; nothing offering much below 1s. 6d. per lb.

SALTCAKE is not available from British makers till the New Year; nominal price is £4 5s. per ton f.o.b. and upwards.

SODA ASH (58 per cent. light alkali).—There is still no life in the London spot market with the price in the region of £9 per ton. Manchester is quoting at about £8 per ton for spot supplies. British makers' price to domestic consumers on contract is unchanged at £7 17s. 6d. per ton.

SODA (CAUSTIC).—Dealers' prices are unaltered at £19 10s. for 70 to 72 per cent.; 76 to 77 per cent. is £21 10s. per ton, ex wharf, shipping port; the general complaint is that business is decidedly dull. British makers' prices to domestic consumers on contract are so far unchanged, but alterations are expected next week for New Year contracts : 76 to 77 per cent., £22 10s.; 70 to 72 per cent., £20 5s. per ton.

SODIUM BICARBONATE from British makers is still declared at £10 10s. per ton, in bags, delivered in the U.K.; spot parcels are on level terms.

SODIUM CHLORATE is somewhat steadier on spot at about 3d. per lb., with business a little better; forward offers are cheaper.

SODIUM HYPOSULPHITE.—Spot pea crystals packed in sound one-cwt. kegs have been in fair demand at about £17 per ton from dealers, and the market seems very steady.

SODIUM NITRATE holds at £12 15s. per ton f.o.r. Liverpool, with nothing much in the way of an improvement in demand so far.

SODIUM PRUSSIATE on the spot is very steady, with the price in the region of 11d. per lb. as to quantity; the f.o.b. Continent price is at about 10½d. to 10⅓d. per lb.

COAL-TAR PRODUCTS, ETC.—This market continues to be lively, and again this week there are a number of important changes in prices. Pitch has weakened again very considerably, and is gradually falling back after the recent big advances. Pure methyl alcohol stands very firm. Carbolic-acid crystals remain steady. ANILINE OIL AND SALT are steady but dull markets at 11d. per lb., packages free. PITCH in London to-day is weak on a dull market at 115s. per ton, showing a fall of 10s. on the week.

#### Fixed Oils, etc.

TURPENTINE continues to decline in value on a dull and weak market. Linseed oil shows little change on the week, but the market is not healthy. Palm oil is still in brisk demand at high rates. Cottonseed oil is an improved market. Other markets show little change on the week.

ACID OILS.—The market continues to be well maintained and business quite satisfactory; coconut, 34s. 6d.; palm-kernel, 34s.; groundnut, 34s. CASTOR OIL.—Ex mills prices are, so far, unchanged, but some slight alteration would not be surprising; pharmaceutical, 53s.; first pressings, 48s.; second pressings, 46s.; 51s.; 46s. and 44s. quoted respectively for May to August delivery. COCONUT OIL.—A very steady tone is reported, and Ceylon has improved to 40s.; deodorised at 44s. and Cochin at 43s. are unchanged. COTTONSEED OIL.—With spot rates fully maintained, this market is firmer and an advance is not unlikely; deodorised, 44s.; common edible, 40s.; soap-making, 38s.; crude, 35s.

GROUNDNUT OIL.—A very quiet

week is recorded, but at the close the market was unchanged; deodorised, 51s. 6d.; crude Oriental, 45s. INSEED OIL.—Owing to a rather urgent demand and the lack of supplies, the premium on spot delivery advanced again, business having been done up to 39s. per cwt., and subsequently at 37s. 6d. Business in near positions is, all the same, limited to actual needs. The market is now gradually getting over a very awkward period, although, going ahead, prices are in buyers' favour. The opening of the export movement of new seed from the Argentine is expected very shortly, as the receipts from the interior of the ports are making good progress. Shipments will probably be accelerated, as the old surplus has been ready practically all accounted for. India has not much surplus left from her last crop, but her terms will inevitably be brought more or less into line with the views of Plata shippers. Market for raw oil closes in London : Spot 37s. 6d., December 35s. 4½d., January-April 33s., ay-August 30s. 4½d., and business done at these prices. All closes at 36s., December 35s. 6d., January-April 3s. 3d., May-August 30s. 7½d. PALM-KERNEL OIL.—A slight recovery in prices is reported after last week's decline: deodorised, 43s. 6d.; crude, 36s. PALM OIL.—Another week of good business has been done and prices obtained are very satisfactory; Lagos is slightly cheaper at 34s. 3d.; flats are a shade dearer at the same figure. Hards are now at the unusually high rate of 36s., with a very steady tone at the close. RAPE OIL is a quiet market with quoted rates maintained; refined, 47s.; crude, 43s. SOYA BEAN OIL.—After last week's advances the price of deodorised oil has fallen back to 42s. 6d., while crude Oriental for shipment remains unchanged at 36s., c.i.f. TURPENTINE.—The position is becoming very puzzling, buyers being as unwilling as ever, but, on the other hand, sellers are reticent at the further decline, although there has been a fair replenishment of supplies at this end for the present, thanks to recent better imports. The lack of faith in the ability of the market is due to the continued dull demand in America and the rise in the exchange, but stocks there are understood to be at well under the normal. France is reported to have already marketed the great bulk of export surplus. The London spot market closes weak at 100s. 6d. December, 100s. 6d. January-April 100s. 9d.

#### German Chemical and Drug Markets

REVIEW of the movements in the German chemical market during the second half of November is not without interest at the present time. The recent rather rapid upward movements in prices of chemicals caused principally through the economic conditions in Germany as the daily basis of calculation is so closely dependent on the turn in the developments of the mark, has induced a correspondent to go closely into this question with a view to forming an idea as to the actual state, as well as to the near outlook for prices: also as to the cause thereof inasmuch as the movements of such prices in the German chemical market are to a certain degree analogous to those ruling in this country. The extraordinary circumstances revealed whilst investigating this matter is explained by the comparatively low stock of chemicals held in Germany and the varied great difficulties manufacturers experience in many instances in procuring even the most essential raw materials. Apart from the heavy overhead charges, such as coal, packing, wages and freight, etc., German chemical manufacturers are heavily booked up for some time ahead. Fresh orders are only accepted by the works at increased prices under due reservation of exigencies due to and in expectation of the general trend of the economic state of that country even when quoted in foreign currencies, which in respect of sales for export as become law. This increase appears justifiable for reason of the constant depreciation of the mark, which in its uncertainty cannot keep pace with the limited output and cost in the production of chemicals, disregarding the expansion of the issue and circulation of paper marks. The following chemicals are selected as being of general interest. The description given in their movements during the past fortnight will in so far be of interest to the reader as in many cases same will undoubtedly reflect on prices in London particularly in respect of such chemicals in which large export business is done from both countries.

ACETYL-SALICYLIC ACID.—Owing to the considerable increase in the German Convention price, this chemical is very firm. For the best brands a price of m. 6,000 per kilo. was paid in the open market. Prices for other makes range from m. 5,000 to m. 5,500 per kilo., whereas prices quoted direct by the makers are considerably higher.

BROMIDES.—The Convention has gradually advanced the price more than 100 per cent. To-day's inland prices are as follows: potassium bromide, m. 1,200 (powder m. 1,250) per kilo.; sodium bromide, m. 1,250 per kilo.; ammonium bromide, m. 1,300 per kilo.

CHLOROFORM.—Prices for this chemical have considerably advanced, and the inland rates are as follows: chloroform, pure, in quantities below 100 kilos., m. 1,600; in quantities above 100 kilos., m. 1,550 per kilo.; chloroform, pro narcosi, in quantities below 100 kilos., m. 1,650; above 100 kilos., m. 1,600 per kilo. The manufacturers' prices for England are: chloroform, pure, 1s. 3d. per lb.; chloroform, pro narcosi, 1s. 4d. per lb.

GUAIACOL PREPARATIONS.—These fine chemicals have lately become extraordinarily scarce. The few works manufacturing are sold out for many months ahead. In the open market only very limited quantities are obtainable at fantastically high prices, which are quoted as follows: guaiacol carbonate, Ph.G.5, at about m. 19,000 to m. 20,000 per kilo.; potassium sulphoguaiacolate, not below m. 12,000 per kilo.; guaiacol crystals, not below m. 10,000 per kilo. It appears that large quantities have lately been exported, and that for this reason a great scarcity is felt in Germany, to which chiefly the firmness of this market is attributable.

HEXAMINE.—An even more pronounced advance in prices has taken place, for which makers to-day ask m. 11,000 per kilo. For first-class make in the open market m. 8,800 to m. 9,000 has been paid. Below m. 8,000 there is hardly any good quality obtainable answering to the requirements of the Ph.G.5. Now and again offers can be obtained from leading manufacturers for export at 2s. 4d. per lb., f.o.b. Hamburg, which is readily paid. The export duty for this and other similar fine chemicals amounts to 11 per cent. in Germany.

VANILLIN.—The price of this chemical has risen many times during the last few months. In the open market it is now quoted at m. 90,000 per kilo., whereas makers quote 50s. per kilo. for export, without any certainty of prompt delivery.

#### Italian Drug and Chemical Markets

Genoa, November 30.

DURING November a strong advance in the value of the Italian lira took place, the English pound declining from lire 114 to lire 90, and subsequently to lire 94.50, and the United States dollar fell from lire 26 to lire 21.60. As the result of these movements the lire quotations for chemicals from England and the United States varied from day to day to the detriment of export business. Consumers on their part delayed business as much as possible, only placing orders when compelled through the exhaustion of stocks. The products produced by Italian works, such as sulphate of soda, carbonate of soda, sodium hypochlorite, sulphate of magnesia, boric acid, etc., benefitted considerably, and were able to keep prices firm. A new commercial treaty with France, lasting one year, was concluded, after long negotiations, by which both countries arranged the lowest importation tariffs. This treaty will in consequence increase business in chemicals between Italy and Marseilles and other French markets. The importation of colouring matters was rendered free. Some of the approximate prices per kilo. (except where otherwise stated) were as follows on the Genoa market:

	Lire.	Lire.
Acetyl-salicylic acid	45 to 55	Morphine hydrochlor. 2,000 to 2,500
Amidopyrin	200 to 225	Opium 10%, Smyrna 120 to 140
Ammonium bromide	12 to 14	Phenacetin .. 120 to 150
Antipyrine	120 to 150	Potass. brom. cryst. 9 to 10
Benzonaphthol	103 to 120	Potass. iodide .. 180 to 200
Boric acid, crystals and powder	800 to 825	Potass. sulphoguaiac. 120 to 140
Boric acid, flakes	820 to 825	Quinine hydrochlor. 600 to 625
Caffeine, pure	180 to 200	Quinine sulphate and bisulphate .. 500 to 525
Calcium glycerophosph. ..	50 to 60	Resorcin .. 65 to 75
Camphor, Japanese	50 to 55	Salicylic acid .. 12 to 14
Castor oil, medicinal	7.50 to 8.51	Safol .. 50 to 60
Chamomiles ..	8 to 10	Sodium benzoate .. 14 to 16
Chloral hydrate ..	40 to 45	Sodium bicarb.(ton) 165 to 170
Chloroform	16 to 18	Sodium bromide .. 11 to 12
Citric acid, crystals	19.50 to 20	Sodium glycerophosphate .. 25 to 30
Cocaine hydrochlor.	2,200 to 2,500	Sodium methylar-senate .. 250 to 260
Codeline, pure	2,500 to 3,000	Sodium salicylate .. 18 to 20
Croscote, wood	40 to 50	Strychnine nitrate 1,100 to 1,200
Guaiacol carb.	160 to 180	Tannic acid, leviss. 40 to 50.50
Guaiacol crystals	130 to 150	Tartaric acid, crys. 12.60 to 13
Guaiacol pure	90 to 100	Tartaric acid, p.wd. 12.70 to 13.10
Hexamine ..	90 to 100	Terpene hydrate .. 20 to 25
Hydroquinone	40 to 50	Theobromine, pure 200 to 220
Iodine, resublimed	218 to 230	Thymol .. 200 to 225
Linsced meal, pure	2.50 to 3	Vanilla .. 340 to 380
Magnesia, calcined	8 to 10	Vaseline .. 6.50 to 7.50
Menthol ..	370 to 400	Zinc oxide .. 12 to 14
Methyl salicylate ..	28 to 30	
Milk-sugar crystals	17 to 18	



Letters for this section should be written on one side of the paper only. The writer may adopt an assumed name for purposes of publication, but he must in all cases furnish his real name and address to the Editor.

### Profit and Loss 1922-23

SIR.—A year ago I gave you a hint about the gross profits having fallen from 33s per cent. to 25 per cent., and several chemists very kindly sent you their private figures to prove my point. Several men here along with me have had a tussle to get Inland Revenue to agree to our figures, but this year they have accepted mine at 25 per cent. with stocks taken to prove it. Now here's another warning, about net profit this time. Up to the spring of 1922 most men's returns kept up fairly well—mostly by sales at cut prices, but, anyhow, they got the cash; they rescued their capital from stock. After May 1922 the war bonus of 32s. per week (which was given on the top of high wages) began to be taken off. Some districts through bad trade had lost it earlier, but, anyhow, the first 16s. came off by May or June from the wages of engineering and other trades, and, of course, the druggist felt the draught at once. The second 16s. was understood to be completed before Christmas 1922, varying in every district, so that by Christmas, anyhow, that 32s. which provided the cash for luxuries, and which the chemist shared in being able to sell big malt extracts, big cough mixtures, and such like, more easily than ever he sold small ones, will have vanished. By March 30 the ordinary high wages of most trades will have the final drop, at least for the engineering and building trades, the printing trade having, I believe, got their final drop prolonged until December 1923. So that people who talk about the slump are "barking up the wrong tree." It is not a slump; it is merely a return to normal with this difference, that we have to:—

(1) Put up with the big expenses falling more slowly than our returns.

(2) That we have two millions still out of work and three million young folk extra who left school last three years over fourteen years of age, and not yet at work.

(3) And we have not only to pay some of them, but we have to put up with the greater loss resulting from their not working.

Chemists whose returns were £4,000 up to, say, June 1922, will have their next two years like this:—

12 months up to June 30	Returns	25 per cent gross profit	Expenses	Net profit
1922 .. ..	£ 4,000	£ 800	£ 550	£ 250
1923 .. ..	2,500	500	420	80
1924 .. ..	2,000	400	250	150

That £80 is all that hundreds of masters will have to live on; 30s. a week as one London master said in the spring of 1922 in the *C. & D.*, supplemented by (1) private income from investments made in previous years (if any), (2) money rescued from their stock since June 1922 and used up in own living expenses. I have no time to argue, am too busy watching my business, but I hope other masters will also write to the *C. & D.* and thus prove once more that I am correct in my forecast.

(1) Rescue your capital from stock; prowl round every week; offer a bargain of some slow seller weekly; keep at it until you have cleared all slow sellers.

(2) Transfer such capital from your current account to a deposit account or Post Office bank; slowly, week by week, keep back some cash for deposit; you will need it.

(3) Buy most carefully, and only the popular lines in big lots.

(4) Get your expenses down; watch light, wages, petty cash, advertisements; you cannot cut rent and rates and taxes, so you must cut the others.

(5) Write to *C. & D.* Information Department if you are landed with stock which won't move even by advertising in drug trade papers. I have tips to spare.

The late Government talked hot air for four years saddled us with Venereal Disease Act, Dangerous Drugs Act, Shops Act, etc., and left alone the one big difficulty which could have been tackled in 1919, viz., unemployment. We were the pioneers in starting new farms in U.S. and Colonies for twenty years. We stopped in 1914, and now we have a leeway of eight years to make up and only city bred boys to do it, lads who have learned against capital and trade unions all their working life and who would not, and could not, tackle farming even if we gave them each a farm ready stocked and furnished. They have not the initiative, nor do they like the work. Farming is the beginning of factories, the beginning of everything in every state; perhaps that's why the late Government forgot about it; but the new Government won't do any better unless they recognise that our 80 per cent. town and 20 per cent. country population is really the root cause of unemployment, because town-bred men have less initiative than country bred. During the war we took clerks and shopkeepers and made them into road and railway builders by training them as a Labour Corps and superintending them. We can make them into farm builders, and we can build half a million new farms in Canada and Australia in three years, but we can't make them settle on farms. Some of them may, and will, but in any case we shall have the farms built in return for the dole as against last three years we got nothing for the dole. And we can then get older men to settle on these farms and bring back the young factory farmers to the towns again if they wish. When the war ended they all wanted open-air life; they were not to come back into wretched shops and offices, and if the Government had called for a million volunteers to go abroad then, they would have gone willingly, and we should not be in the hole we are in to-day, because the majority would have stayed abroad. After three or four years of doles and doing nothing I have my doubts, and I also doubt if the difficulty will be tackled for another two years. The Overseas Settlement Act passed by the late Government was excellent, and greatly in advance of anything ever John Bull had previously done. But it overlooked that one vital point of the 80 per cent. town bred who hate to be far away from streets and shops and picture palaces. The Act enables £30,000,000 a year to be spent in sending people overseas and in lending them money to make a start, but they will not go; and until Bonar Law explains it to them and forms a Labour Corps, very few will venture. So that men and masters can see for themselves what exactly is in front of us in the drug trade, unless and until the unemployed are set to work.

JAY MACK.

### "Chemists' Windows"

SIR.—Your little book on "Chemists' Windows," put into my hand by a friend this morning, is not only the most complete treatise on the subject that I have seen, but one that compels attention by the artistic style in which it is got up. The pictures of actual shop windows speak for themselves and hardly need the letterpress which accompanies them, but the latter would, apart from the pictures, be worth the price of the book. The chapter on window tickets is one of its most useful features, and, like those which follow on the art of arrangement and special displays and attractions, it can be utilised for any kind of window, old or new. The whole subject is so exhaustively treated as to leave nothing to be said. As I was reading it a letter from a friend came to hand in which, speaking of his year's business, he said that though it began badly his returns have increased amazingly during the last few months, in which special attention had been given to the dressing of his windows.—Yours truly,

SENEX (2/12).

### Irish Company Apprentices

SIR.—Having read with interest the correspondence (*C. & D.*, November 25, p. 755, and December 2, p. 794) I wish to state that "L.P.S.I." has formed an absolutely erroneous idea regarding the training of apprentices

private pharmacies, particularly in country districts where he mentions the number of prescriptions for a whole month could be counted on the fingers of one hand. Such were the case, I fear the Pharmaceutical Society would come to an extremely low ebb should its licensees, the majority of whom are proprietors of country pharmacies, be dispensing only four or five prescriptions a month. I happen to be the proprietor of a pharmacy in a small country town, and dispense approximately from twelve to fifteen prescriptions a day, so if a person could count at that rate per month on the fingers of one hand he should be a "monstrosity." Regarding the training an apprentice would get in a city company pharmacy, I do not agree with "L.P.S.I." that it would be superior to that of a country one, inasmuch as the latter seldom goes in for side lines, such as chocolates, crackers, etc., now extensively sold in many large company pharmacies, to draw the attention of the pharmacist from his pharmaceutical duties towards his pupils. Though disagreeing with "L.P.S.I." on above points, I agree with his comments on the suggestion that has been made to substitute a University matriculation for the present pharmaceutical Preliminary examination. Like him, I consider a good all-round education essential for the aspiring young pharmacist, but until pharmacy is more looked up to "publicly," a University education would be completely lost; in other words, it would be a waste of casting pearls before swine. If the present generation of chemists had limited themselves to pharmacy pure and simple, without embarking into the sale of vulgar articles, then a University education might be appreciated.—Yours faithfully,

COUNTRY PHARMACIST (4/12).

#### "Unprofitable Proprietary Articles"

SIR,—I would not like to hold a brief for every scheme started by proprietary houses, but if a house already enjoys a goodly measure of the goodwill of the trade abarks on a scheme, and that one which claims to be mutually beneficial, then such claims should be examined without bias. One cannot dispute the right of the Scarborough Association to agree unanimously to fuse a local advertising scheme. On the other hand, a proposition unacceptable to Scarborough can be—the chances are it has already proved to be—a valuable acquisition elsewhere. Mr. Scott is perfectly right in advocating the rejection of any scheme anywhere which gives the chemist with a high stock to offer to a free-gift saturated public. Such a suicidal policy could not emanate from a house which valued its customers' goodwill. It certainly is not "mutually beneficial." A scheme to create local demand—based on local newspapers, handbills, or any other method—the cost and risk of which is wholly borne by the manufacturer concerned, is a business "pick-me-up." The manufacturer makes a heavy outlay for no purpose excepting the retailer makes considerably more than average sales. Then if it is a Proprietary Articles Trade Association line, and better still, if it is additional business, the arguments in favour of accepting such a scheme are superabundant. "Thirty or so extra sales at 3s. a time brightens up a Saturday's takings very considerably," as one chemist friend assured me. The saturation of the public by the free-gift size would necessitate the scheme succeeding beyond all reasonable expectation. In fact, it is practically impossible. A very moderate size parcel only of both regular and free-gift sizes are sent to co-operating retailers as a rule. It is considered a better policy to pay for the telegrammes chemists may utilise procuring extra supplies, rather than risk leaving co-operators with goods surplus to requirements. Generally, a very small percentage of prospective consumers need take advantage of the free-gift bonus offer to ensure all retailers clearing stock supplied. That this is the considered opinion of the manufacturer running the scheme, is proved by the fact that invariably a follow-up contract for space is booked with local papers, and no one would be so foolish as to spend money endeavouring to sell goods to a saturated public. This leaves only one objection to reply to, same being—"this system reduces the profit in ratio to the value given." I am open to correction, but I never

heard of profit being based on value; always on cost, for who shall assess what constitutes value? Using an excusably far-fetched simile, if to encourage sales in a certain district, a manufacturer of fixed-selling-price cameras offers by means of local advertisements a certain number of rolls of films to each camera customer purchasing on "one day only"—the retailer thereby making a number of sales he otherwise would not have made—is it right to contend that fewer rolls of films will be sold in the coming few months because so many have been given away? Then, too, should the retailer complain that he received only the same profit on each camera with which he gave the films (whatever the films were worth) as when he sold the camera alone? Thus I contend that the phrase "profit in ratio to the value given" sounds very well, but is not based on commercial actualities. I submit that Mr. Scott has made out a very good case against accepting any and every scheme which comes along. Irresponsible highly-coloured schemes contribute more than their quota to retailers' hidden-away stock. Nevertheless, we should view the mutual advertising proposition of a responsible house—with a goodwill to lose—as in a class by itself. The more responsible the house, the more they risk to lose, and cognisant of this risk, they usually take adequate measures to guarantee success.—Yours faithfully,

B. B. (1/12).

#### Fixing Selling Prices

SIR,—Mr. Skinner's lecture to the Central Pharmacy Club on "Fixing Selling Prices" (*C. & D.*, December 2, p. 764) gives a comprehensive view of the different percentages necessary on the selling prices of the various classes of commodities in which we deal, if we are to conduct our businesses on profitable lines, and I have no doubt that the figures are worked out on a scientific basis. My difficulty begins when I try to carry Mr. Skinner's theories into practice. Take, for example, the turnover of proprietaries in the case of the business he gives as an example; this was £750, and was too low to carry its due proportion of profit in relation to the other goods, so that the proposition is to increase this turnover from £750 to £1,000. The idea is good—on paper—but when I try to apply it to my own business I fail to see how I am suddenly to sell £5 worth of patents over and above present sales every week. In a small town the number of inhabitants is practically stationary, and at the present time at any rate, with the constant reduction of wages, while rents, taxes, etc., remain high, the spending power of the ordinary person is decreasing rapidly, and I should say that there are few businesses which have not shown a lowered turnover during the past twelve months. Therefore it is hopeless to attempt to drag my extra £5 a week from pockets already bare; I could possibly create a temporary increase by one or other of the "stunt" methods, complete window show or special week or similar idea; but these schemes only bring about an abnormal high tide which leaves a backwash of slackness behind it; and I could perhaps by dint of advertising draw the extra custom from somebody else's shop. But as we are considering the matter in general, and not in detail, it is quite likely that Mr. Somebody Else has also read Mr. Skinner's advice and is acting on it, so that we should remain in statu quo. The same position applies to the proposed increased turnover in drugs. With regard to sundries, we are not all in a position to raise our percentage as we should like, as we have to consider the competitive prices of company shops. Take enemas, hot-water bottles, vacuum flasks, washing gloves, and similar lines which are sold at rock-bottom prices, not only by company chemists, but by all sorts of stores, drapers and other dealers; if we are to fix our selling price by rule we are simply driving our customers elsewhere, as I have more than a notion that these stores do not aim at making these goods pay their true profit, but rather use them to encourage customers to shop at their premises. There is one item, however, on which I think Mr. Skinner fixes the margin too low, and that is photographic; this he gives as 25 per cent., but plates and films bear 30 per cent., papers 35 per cent., apparatus

such as lamps, dishes, etc., 33½ per cent., and if the developing and printing is sent out this also shows a third, so that I think this figure should have been nearer 33½ per cent.—Yours faithfully,

TURNOVER (4/12).

### Early Closing

SIR.—Before the early closing day was enforced by Act of Parliament the single-handed shopkeeper was the biggest stumbling-block in the path of the pioneers of the movement. He had only his own interests to consider, and if he chose to work all his week round that was no business of anybody else; but it was not always a sense of greed that compelled him to take this line of action; it was often a matter of necessity. The margin on which he existed was a very small one, and he was no doubt largely actuated by the fear of losing custom both directly at the time and indirectly afterwards through customers going elsewhere if he closed at an early hour, unless he could be positively certain that all other traders followed suit. Of course, it led to the hours becoming longer and longer, and to such unedifying sights as could often be seen in some places, especially in small towns, where two men on opposite sides of the road would watch to see the other man's light go out before either would close their own door. This sounds rather an Irish way of putting it, but I have a case in mind which I remember where the lights of the two rival pharmacies were to be seen burning long after all the rest of the local inhabitants were indoors and mostly asleep. I sincerely hope that those days have gone for good, and although I feel that in many respects we are becoming a nation hedged round with regulations, such a state of affairs ought to be rendered impossible in the future, and for that reason I hope that the Shops Act will be adhered to.

Yours faithfully,  
EARLY CLOSER (20/11).

### Legal Queries

F. B. (17/11).—The use of the word "Pharmacy" as the description of a shop is not confined to registered chemists.

M. C. (27/11) has an apprentice, aged sixteen, whose remuneration is 10s. per week. What national insurance contributions are payable in respect of him? ["M. C." must pay 5d. per week each for Health Insurance and Unemployment Insurance, while the apprentice must pay 4½d. per week in respect of the former and 5d. per week in respect of the latter.]

W. W. (20/11) holds his business premises as tenant of a railway company. He has a bed on the premises and occasionally sleeps there. He has now been given notice to quit; is he protected from eviction? ["W. W." does not state the rent of the premises, but even if it is such as to bring the premises within the Increase of Rent Act, 1920, we think it is unlikely that the Court would regard the premises as a dwelling-house so as to receive the protection of the Act. Unless the Act protects him "W. W." must give up possession after the tenancy has been terminated by the requisite notice. We suggest that "W. W." should consult a solicitor.]

Agricola (27/11) has a son who has turned 16 and is articled to an architect. The son receives no payment for his work in connection with his training, is kept by his father, and attends part-time at college, wishes to know if in these circumstances the son could be looked upon as at an educational institution, so that the father could claim the statutory rebate for him in his return for income tax. [Strictly speaking, the rebate in respect of a child over 16 years of age is allowable only when the child is receiving full-time instruction at any university, college, school, or other educational establishment; but as this case, although outside the letter, comes so clearly within the spirit of the provision, we think "Agricola" ought to make the claim for the allowance and give particulars of the college and apprenticeship on the return.]

### Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

E. C. B. (13/11).—The wages of a Hall qualified woman assistant are now about 50s. a week, but much depends upon the dispenser's experience.

F. W. B. (17/11). FORMALISED EAU DE COLOGNE is prepared by adding formalin to eau de Cologne in the proportion of 1 in 8.

R. & Co. (16/11).—The formula for OLEUM CHLOROPHORI of the Swiss Pharmacopœia is :—

Olei Olivæ Optimæ ...	... ...	3.0
Chloroformi ...	... ...	1.0

C. S. T. (27/11).—BRASS MORTAR.—This does not appear to possess "antiquarian attractiveness," although the mark on the bottom, "M. G., C.C. 1809," is unusual. The impression may be that of the maker. It recalls the style of trade tokens of the eighteenth century, and may have been produced with the same branding tool. The mortar cannot be of great value, as specimens of three times the size can occasionally be picked up for 20s. to 30s.

Jaygee (9/11).—PRELIMINARY EXAMINATION.—It is difficult to say whether the absence of "composition" would invalidate acceptance under the term "English." In any case you should send your certificates, together with the registration fee, two guineas, to the Registrar, Pharmaceutical Society, 17 Bloomsbury Square, London, W.C.1, who will, if there is any doubt about the acceptance under the regulations, submit the certificate to the Council for consideration.

G. F. S. (4/12).—CALCIUM LACTATE RECENS.—The figures you give of the lactic acid and calcium carbonate needed to form calcium lactate, though not contradictory, are confusing. The figure of 100 minims which we gave was from a method largely used, but we omitted to give the acid strength. In ordinary dispensing practice it would be more convenient to use B.P. acid 75 per cent., sp. gr. 1.21 to form a theoretically correct calcium lactate B.P. In this case the 32 m. is right. At the same time 48 m. with the same acid gives approximately 3j of pure calcium lactate.

### Retrospect of Fifty Years Ago

Reprinted from "The Chemist and Druggist," December 14, 1872

#### Examination Regulations

It is important to scrutinise very narrowly the emendations which the Board of Examiners, in conjunction with the Pharmaceutical Council, have just made in reference to the regulations for the various examinations. As far as we can gather any definite ideas at all on the subject, we are forced to the conclusion that the Council is now acting in such a manner as, if persisted in, will lead sooner or later to an open revolt against their authority on the part of chemists and druggists outside their circle. We have watched with some anxiety of late, the growth of ultra-academical views; we have heard from one speaker after another, the most extravagant exaltation of a certain academical training; the most narrow and prejudiced abuse of everything non-academical. Men are carelessly branded as criminal for no other reason than that their ways are not the ways of Bloomsbury Square; and students, whose hard, patient toil in face of every untoward circumstance, has resulted at last in a victory over their studies, certified by the examiners themselves, have been sneered at, and held up to ridicule and ignominy, because they did not draw near to the gates of pharmacy by the royal road. These sort of students deserved a reception far different to that. Not a patronising oration, but honest respect was due to their manly efforts. And yet, amid all the diversity of opinion among the greater or lesser pharmaceutical lights on the education question, there has been no single protest against the ungenerous aspersions which have emanated from the Academy, but rather a gradual convergence to similar views.



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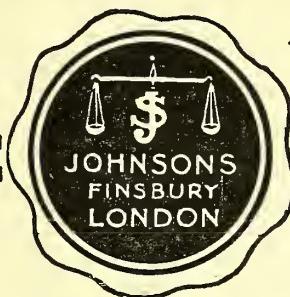
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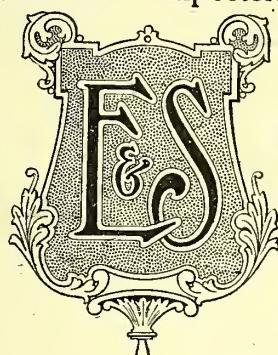
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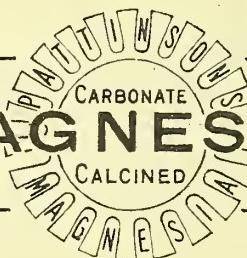
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IN LOTS TO SUIT  
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Several Tons of Jujubes  
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**PHARMACEUTICAL CHEMICALS AND DRUGS AND ALL CHEMICALS  
FOR SCIENTIFIC PURPOSES, TECHNICAL INSTITUTES, &c.**

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Acetol Salicylate	Diacetyl tannin	Phenetidine Citrate
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Adrenaline	Etherethylaminobenzoate	Potassium orthoxyquinoline sulf.
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Barbitone	Hexamine and derivatives	Salicylate
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Benzonaphthol	Ichthosulfol	" Nucleinate
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Bismuth tribromphenate	Mercurials	Sodium Arsanilate
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QUINIDINE  
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Sugar-coated Quinine Tablets and Pills.

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Gelatine-coated Oval Pills.

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For quantity terms for Antiphlogistine and Veterinary Antiphlogistine write to the  
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KNOWN ALL OVER THE  
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STANDARD LIQUID  
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10½d. Pocket Size... ...	8/5 doz.
2/- Medium Size ... ...	19/2 "
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£3 and up Carriage Paid.

Order through your wholesaler or direct

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Guaranteed Relief  
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For Rheumatism, Lumbago, Neuritis,  
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A Nationally Advertised Line that pays  
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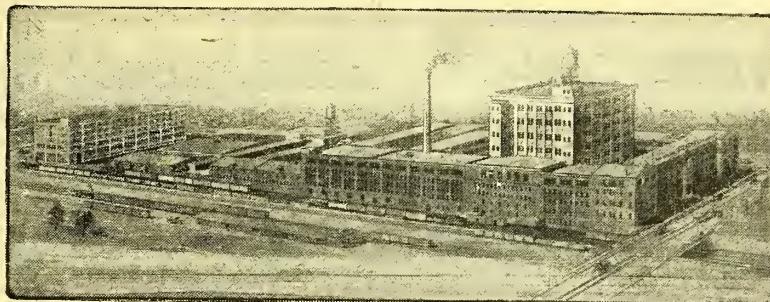
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STEARN'S  
QUALITY  
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Registered Name :

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Each tablet contains 5 grains of Lithium Acetyl-Salicylate.

**LITMOPYRINE TABLETS**In bottles of 40 at **22/6** per doz. subj.  
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M.R., **5/-****LITMOPYRINE** is also supplied as a **POWDER**

for dispensing, and as a

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5 grains in 60 grains.

And in the following combinations :

**LITMOPYRINE** and **CAFFEINE** in TABLET FORM and  
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and Metal tubes.*Large selection of tubes.*

Anestile for Local Anaesthesia.

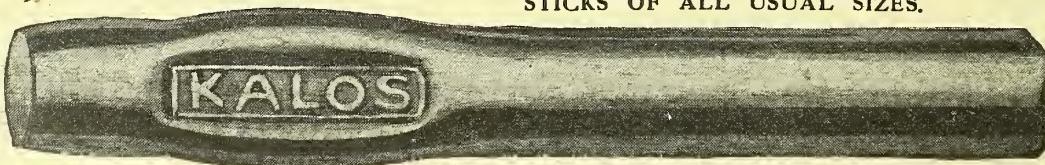
Narcotile for General Anaesthesia.

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*Ask for Special Terms and Showcards for  
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A safe, simple, and reliable remedy for Children's Ailments is advertised so extensively in the daily and weekly Press as to bring mothers to the retailer without effort on his part.

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STICKS OF ALL USUAL SIZES.

In order to maintain the highest standard of Purity, samples of this Juice are periodically submitted to Mr. Ernest J. Parry, B.Sc., F.I.C., R.C.S., London, for analysis. Buyers may submit samples for analysis of any shipment they may receive at makers' expense.

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Kutnow's Powder is acknowledged by chemists and medical men to be the best product of its kind on the market.

That is why no customer who has once tried it ever leaves it for long.

The margin of profit is remarkably liberal. We are educating the public to take Kutnow's Powder by means of a consistent widespread advertising campaign which is already bringing remarkably good results. Our sales are mounting. So will yours. You have only to show the Public you stock Kutnow's Powder by arranging an attractive window display and you get their custom and our bonus.

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details of  
special  
window display  
bonus scheme  
and terms.*

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## ERGOAPIOL (Smith) PROTECTIVE MARK

Patented in U.S. and Foreign Countries.

Ergoapiol (Smith) is now identified by the letters M.H.S. in the gelatin on the inside of each capsule. These letters are not visible from the outside, but they are plainly discernible in the gelatin when the capsule is cut in half.

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PROMPT SHIPMENT

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PREPARED BY THE PROPRIETOR OF THE CALABRIAN LICORICE  
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**THERE IS NONE BETTER**

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## WHOLESALE PRICES.

### Beecham's Pills:

1s. 3d. size .. .. .. .. ..	10s. 6d. per doz. net.
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5s. 0d. new size, contains double the quantity of 3s. box,	50s. 0d. " "

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Minimum quantity £5 value. Packages FREE. Carriage PAID. CASH WITH ORDER.

Cheques to be made payable to THOMAS BEECHAM, and crossed "Parr's Bank, Ltd., St. Helens."

Rheumatism

Ki-uma

Your customers will know of Ki-Uma, the new cure for Rheumatism that is effecting cures in cases that had formerly been discharged as hopeless. They will ask for it and you should be able to supply them. Ki-Uma is profitable to handle. There is a generous margin of profit and Ki-Uma is a repeater.

Retail price, 3/- per box.  
On the P.A.T.A. List.  
Communicate direct with  
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ACTS LIKE MAGIC

Sells freely and readily.

Size.	Per doz.
10½ d.	8/6
"RED BOTTLE or ST. PETER'S OIL,"	1/3 - 12/3
	3/- - 27/-

No case too bad! Trade Mark. ESTABLISHED 1854.

5% Discount 30 days, on orders of £6.

Licoricine is a popular remedy for Coughs and Colds wherever introduced.

Now is the time to get in your stock.

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Tower Works, NEWCASTLE-ON-TYNE

National Telephone: 143 Central.

*A Sure Profit of 20%.*

# Urodonal

Costs you **48/- & 115/2½ per doz.**

Sells at **5/- & 12/-**

*It is backed by an extensive advertising campaign. Urodonal is in every home—it has a constant demand. Urodonal stands for clear profits—are you getting your share of these?*

*Jubol, Globéol, Gyraldose, Pagéol, Fandorine, Sinubérase, Filudine, Jubolitan, Jubolitoires, Vamianine, Dialirol, Linycol, Rhino-Fogyl, Fogyl, Romanyl,*

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From—Sangers ; May, Roberts ; Butler & Crispe ; Wilcox, Jozneau & Co. ; and all Wholesalers.

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*Sole Agent for Chatelain's Laboratories, Paris.*

**BIGGEST PROFIT  
ON EVERY SALE**  
You can make more if  
you sell

**Sphagnol**  
ASK FOR SFAGNOL

**SOAPs and OINTMENT**

Sphagnol sells quicker at a bigger retail profit than any other skin remedy.

Extensive advertising and remarkable healing properties have built up big trade for the retailer who realises the money-making possibilities of these lines. Regularly prescribed by the Medical Profession.

Prepared from a distillate of peat, Sphagnol Soaps and Ointment are the natural remedy for Acne, Alopecia, Anal Fissure, Blepharitis, Chilblains, Dermatitis, Eczema, Erysipelas, Haemorrhoids, Impetigo, Insect Bites, Prickly Heat, Pruritus, Psoriasis, Falling Hair, Scabies, Septic Wounds, Urticaria and Burns.

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*Handsome showcard,  
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The HEALING VIRTUES of the PEAT MOORS

**DUTCH  
Sugar  
of Milk.**

**"THE BEST"**

**HOLLANDSCHE  
MELKSUIKERFABRIEK  
Amsterdam.**

# Generous Profits

are assured to the Pharmacist  
who stocks these popular products.

**Kay's 'LINSEED COMPOUND'**  
Compound Essence of Linseed

**Kay's MOUNTAIN FLAX PILLS**  
'Linum Catharticum'

**'Kay's TIC PILLS'**

**'Kay's THROAT LOZENGES'**

Purchased in convenient quantities from any Wholesaler they carry a clear protected (P.A.T.A.) 25% on turnover (33½% on cost). Their real merit—backed by shrewd advertising—ensures a steady ever-growing sale.

*Sole Proprietors :*

**KAY BROTHERS LTD.  
STOCKPORT**

**HARROGATE TABLET COMPANY'S  
HELPFUL TALKS to CHEMISTS**

**Our  
Dr. Stork's Worm Cakes  
are Unique**

**CHILDREN** like to unwrap the silver covering, are charmed with the laughing baby face, enjoy eating the delicious chocolate.

**PARENTS** find them efficacious and economical, have no difficulty in administering them, can take them themselves with beneficial results.

**CHEMISTS** see children gratified!  
see parents satisfied!!  
see profits multiplied!!!

therefore they STOCK THEM.

Packed in beautifully decorated tins of 1½ gross.

Price 10/- per gross. Retail at 1½d. each.

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CHATSWORTH GROVE, HARROGATE.**

# IDOZAN

Doctors are now daily finding that this new Iron preparation fully justifies all we claim for it, viz., that by reason of its large percentage of pure assimilable Iron Anæmic conditions rapidly respond, and there is considerable improvement in even the worst cases within a week. It does not constipate; does not harm the teeth; does not cause gastric irritation. You can safely recommend it. Retailed in one size only, 8-oz. bottles, price 5/-.

*Order from your Wholesaler :*  
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RAIMES CLARK, Etc.

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THE GREAT NERVE FOOD AND FLESH BUILDER.

IRVONA is obtainable from all the usual wholesale houses, or direct, at the following prices—**3/-** size, **27/-** per dozen.

**15/-**, **135/-**, "

"IRVOLAX" (the safe aperient).

**1/3 size** ... ... ... **12/-** per doz.  
**3/-**, (four times the quantity) **27/-**, "

## MOLVENE

(the safe flesh reducer).

**3/-** packet ... ... ... **29/-** per doz.

Terms Net 30 days, subject to usual trade references.  
For orders under 27/- in value cash with order.

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**The Greatest of all Tonic Foods.**

*Introduced in 1910, the first*

**ALL-BRITISH Tonic Food**

VITAFER has outlived the great majority of its competitors, and by proved worth has maintained its position.

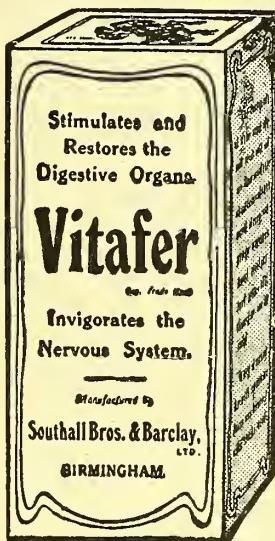
On the P.A.T.A. list,  
in tins,

**1/6, 2/6, 4/6,  
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Sold at face value.

£5 orders with window  
show carry a bonus of  
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Advertising aids,  
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Vitafer shows a  
**PROFIT of**  
**38 per cent.**  
**on returns**  
or if bought in  
£5 parcels  
**42½ per cent.**

*Full particulars freely  
on application.*

SOLE MANUFACTURERS:

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## GLASS BOTTLES

FULL RANGE OF

Medicals (plain and graduated),  
Flat Dispensing, Panel Flats,  
Poisons, Limes, Kalis, Emulsions,  
Tobins, Vials, Tablets, &c. &c.

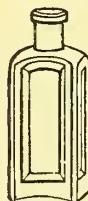
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Highest Quality  
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WHITE FLINT,  
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PALE GREEN,  
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LOWEST  
PRICES.



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Medical Flats, Panels, Vials, Poisons.  
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I solicit your enquiries for MEDICAL FLATS in all sizes, plain and graduated, MEXICANS, POISONS, KALIS, LIMES, VIALS, CANNONS, OVALS, BRILLIANTINES, in all shapes, SCREW JARS, TABLET BOTTLES, etc. etc. All bottles used in perfumery and chemist trades. Special shapes made. Wholesale quantities only.

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Waterproof Papers, Gummed Paper Tapes, etc. etc.

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# BOTTLES

FOR ALL KINDS, WRITE TO— **FREDK. YOULDON**

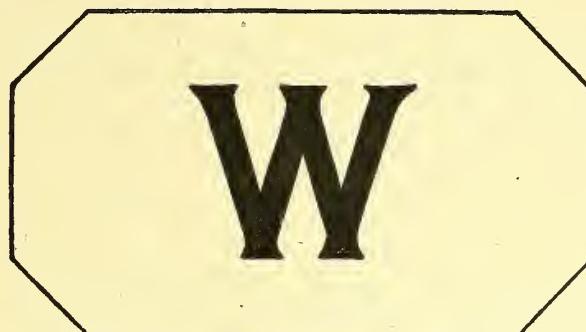
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Portland House, 73 Basinghall St., London, E.C.2

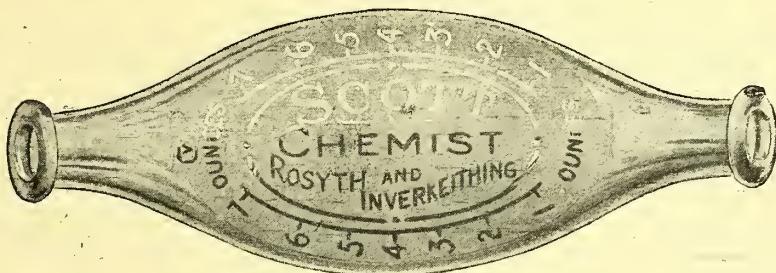
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Made in Neutral Glass of High Thermal Endurance, with CHEMIST'S NAME AND ADDRESS and the graduations in

## SANDBLASTED LABEL of excellent design and execution.

No particles of sour milk or impurity can lodge inside the Feeder as the interior is absolutely smooth.



### BEST FOR THE BABY

who has it, because it is the most hygienic.

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who buys it, because it is the most easily cleansed and is not liable to crack with hot liquids.

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who sells it, because it bears his name and is a constant advertiser of his business in the family circle.

In one gross lots and upwards through your Druggists' Sundriesman.

WOOD BROTHERS GLASS COMPANY, LTD., BARNSLEY, ENGLAND.

Established 1828.

# Petroleum Jelly

White, Yellow, Amber,  
& Ruby Red, for all  
Pharmaceutical and  
Veterinary purposes

**MEADE-KING, ROBINSON & CO., LTD.**  
LIVERPOOL - LONDON - MANCHESTER - LEEDS.

**ADEPS.LANÆ, P.B.** The Finest British  
Lanoline Produced

IS MANUFACTURED BY

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Refuse German Material and Insist on British.

# PETROLEUM JELLY.

Gough, Kidston & Co.

Chemical Manufacturers,  
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(A good name is more than riches.)



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goes one better than ordinary ammonia in quality—and profit. Recommend it and reap that benefit.

We do not put the label on until the quality is there.

All experienced buyers know that the name of Sutton stands for trustworthiness, uniform high quality, and absolute purity.

Please send for terms:

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WHITE and Half-  
White Oils for use in  
manufacture of Brilliantine,  
Pomades, Toilet Prepara-  
tions, etc. These oils can  
also be supplied in any  
shade of Green, Yellow,  
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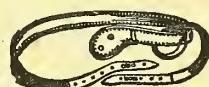
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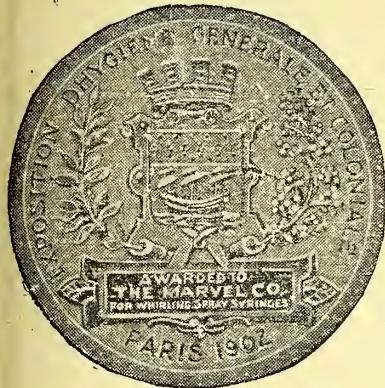
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as the safest and best improvement in Vaginal Syringes. Particular attention is called to the fact that by reason of its peculiar construction the Marvel Syringe dilates and flushes the vagina with a volume of whirling spray, which smooths out the folds and permits the injection to come into contact with and cleansing the entire surface.

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Fig. 957



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Heavy make	Sizes each	6×8	6×10	6×12	8×10	8×12	8×14	10×12	10×14 in.
Grey rubber		3/5	3/9	4/1	4/5	4/9	5/3	5/6	6/0
Red rubber	"	3/8	4/0	4/4	4/8	5/0	5/6	5/9	6/6
Each Bottle in a strong paper bag with directions for use.									
		COVERS.							
Scarlet or grey plush ea.	Sizes	6×8	6×10	6×12	8×10	8×12	8×14	10×12	10×14 in.
Velour, assorted colours (washable)	each	1/2	1/4	1/6	1/7	1/8	1/10	2/-	2/3
MUFF WARMER red rubber, oval shape, 3½×7 in., each 2/-									

For the Christmas trade we hold a large variety of  
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A 30-second pushed back in an instant.

Showring flattened bulb at end.

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The only Easy Reading Magnifying Clinical on the Market.  
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The square mark engraved on lens front locates the Mercury column immediately.

SPECIAL AWARD AND GOLD MEDAL, NEW ZEALAND, 1907

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Contractors to H.M. Government.

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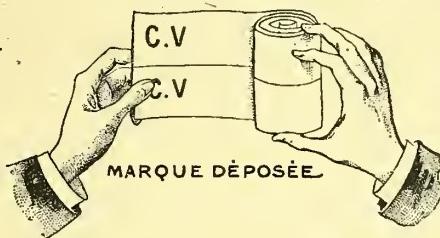
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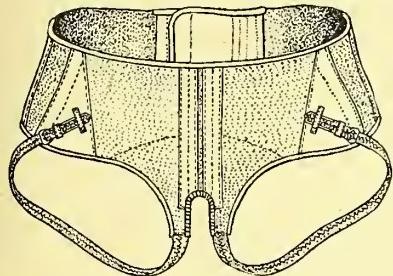
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have the honor to announce to the Trade that they have acquired the Sole Agency for the United Kingdom of Great Britain, Ireland and the British Dominions of The Celebrated Crepe Velpeau Bandages so largely sold before (and which practically disappeared from this country during) the Great War. These Bandages are so well known to the Trade that it is unnecessary to speak of their high quality and reputation, or to emphasize their superior merits. We are carrying large stocks and shall be pleased to forward prices and samples on application, packed in the original French wrappers and cartons.



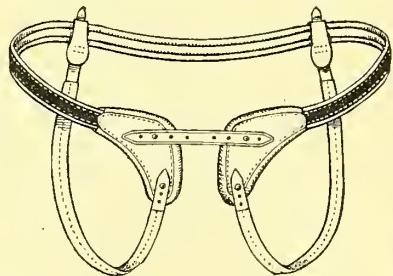
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ABDOMINAL BINDERS (Only made  
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1st Quality—RED LINE.

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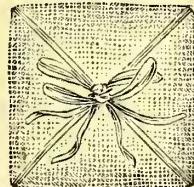


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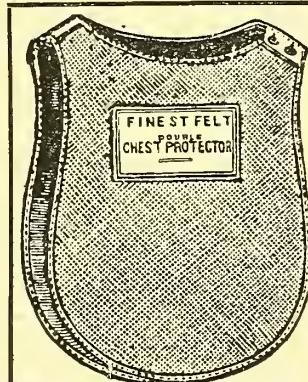
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WELL PACKED IN  
BOXES OF 2 DOZEN.



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The most perfectly made  
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# THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST.  
LONDON E.C.4

DECEMBER 9, 1922

This Supplement is inserted in every copy of *The Chemist & Druggist*.

## THE CHEMIST AND DRUGGIST SUPPLEMENT

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## BUSINESSES FOR DISPOSAL.

6s. for 50 words or less; 6d. for every additional 10 words  
or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

EASTERN COUNTIES.—Genuine good-class Mixed Country Business; well-fitted and stocked Pharmacy; commodious house attached; returns under unqualified management £1,500 at full prices; good profits; easily worked; nearest opposition 6 miles; scope for great increase; splendid opening for Dentistry; every inquiry courted; price for business and property (freehold) £1,500; principals only. 164/11, Office of this Paper.

LONDON.—Wholesale manufacturing Toilet Specialities, etc.; extensive connection throughout U.K.; established 30 years; will be sold as a going concern to immediate purchaser; lease on premises at low rental; opening for retail department, if desired, in populous neighbourhood; limited company. Stock, fittings, furniture, ctc., at valuation, with small sum for goodwill and lease; about £1,500 all at. Principals only. 167/20, Office of this Paper.

FOR immediate sale, £600, Chemist's Business, S.E. London district; well established and no near opposition; shop nicely fitted; dwelling house (8 rooms); lease 54 years; present hands 26 years; genuine bargain; has been neglected owing to advanced age of proprietor, who is retiring; exceptional opportunity for a young and energetic Pharmacist. Apply "M.P.S.", 165/22, Office of this Paper.

TO Chemists.—Ideal central Business Premises; good living accommodation; splendid opportunity; county town; freehold; possession. Call, Lansley, 53 Friar Street, Reading.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

**SALES BY AUCTION.**

BY ORDER OF LIQUIDATOR AND OTHER ESTATES.

**S**TOCKS of Tooth Brushes, Face Powder, 1 drop and other Perfumes, Carbolic, Lysol, and Toilet and Shaving Soaps, Brilliantine, Shaving Brushes, etc., will be included in Auction Sale,

THURSDAY, DECEMBER 14, at 12.30 o'clock, at THE LONDON TRADE SALE ROOMS, 78, Fetter Lane, E.C. (opposite Gamage's). Catalogues post free. Tel.: Holborn 1639.

**BUSINESSES WANTED.**

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

**G**EENUINE Chemist's Business, with living accommodation, wanted immediately after Xmas; price about £1,000; cash in hand for immediate negotiation. Advertiser would alternatively consider partnership in good business. Full particulars, in confidence, to 167/1, Office of this Paper.

**W**ANTED, small Retail Business, London or suburbs; neglected one not objected to if scope for increase. Full particulars, in confidence, "Aspirin" (P.C.B. 79/26), Office of this Paper.

**AGENCIES.**

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

**B**UENOS AIRES.—Agent, representing now one good firm only, requires one or two more Agencies, which must guarantee a portion of expenses. Full information supplied to any good firm applying to 16/502, Office of this Paper.

**A**GENT for Wales and Potteries; good line; already well known; commission only; opportunity for live man; state ground covered, references, lines at present carried. 16/506, Office of this Paper.

**T**O Manufacturers.—London firm, with travelling organisation throughout U.K., open to consider Sole Agencies and Distribution amongst Chemists of suitable lines from January 1 next. State commodities and terms that will be conceded. "F. G.", 16/507, Office of this Paper.

**PARTNERSHIP.**

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

**Y**ORKSHIRE.—Advertiser, with ample capital at command, would be glad to meet with a few Chemists with a view to Co-operative Buying, or to become financially interested as a Sleeping Partner in new or existing businesses. Replies treated confidentially. 165/25, Office of this Paper.

**A**N Importer of high-class Cut Crystal Goods requires a well-educated gentleman as Partner; must be willing to travel to works in Bohemia when required, and be prepared to act as Representative at the outset; capital £500. P.C.B. 78/34, Office of this Paper.

**FOR SALE.**

**C**HEMICAL Balances, seven for sale, cheap to clear; repaired by makers. C. H. Clarke, 95 New Street, Birmingham.

**PREMISES FOR SALE.**

**T**O Cash Chemists and Druggists.—Fine opportunity for Cash Chemists to establish a business in the town of March, Cambs.; population of nearly 10,000. Excellent Freehold Elizabethan Premises and Fixtures; finest trading position; vendor retiring after 18 successful years' trading as a draper, who desires to sell the whole by private tender. Tenders invited; can be viewed; frontage, 15 ft., depth 100 ft.; back entrance side street; excellent warehouse for motor garage; stores over. Particulars and conditions, apply Vendor, F. Jermyn Smith, 13 High Street, March, Cambs.

**SITUATIONS OPEN.****[HOME.]****RETAIL.**

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

**BRENTWOOD MENTAL HOSPITAL, BRENTWOOD, ESSEX.**

**W**ANTED, a fully-qualified Locum Tenens Dispenser (male) for a period of one month; salary £4 4s. per week. Apply at once to the Medical Superintendent, stating qualifications and experience, and enclosing copies of two recent testimonials.

**B**RIGHAM.—Junior Assistant wanted early New Year for good-class retail and dispensing business; state fullest particulars of age, height, experience, salary required, etc.; photo, which will be returned. Jackson, 16 Western Road, Hove.

**L**ONDON, S.W.—Counter Assistant required, unqualified, about 30 years of age; should have good experience in fitting Trusses, Stockings, and Surgical requirements in addition to the ordinary routine of the Retail trade. Write, stating experience, Box 1087, Sells Advertising Offices, Fleet Street, E.C.4.

**L**ONDON, S.W.—Junior wanted for Counter, Stock, and to help with N.H.I. dispensing. Must be quick and willing, and able to start at once. Please state age, references, and salary required, to "Beta," 166/15, Office of this Paper.

**A** FEW vacancies for experienced unqualified Assistants from 25 to 35 years of age on the staff of a large retail drng company. Apply Box 560, Smiths' Agency, Ltd., 100, Fleet Street, London, E.C.4.

**A**SSISTANT, qualified, age about 27; thoroughly honest; capable Dispenser and gentlemanly Counterman. Reply, with photo, giving references and all particulars re salary, etc., in first letter. If unanswered in three days declined. J. Bell & Co., 22 Robertson Street, Hastings.

**A**SSISTANT; good Salesman and Window-dresser and Dispenser. Preference given to applicant with up-to-date store experience. Age not over 35. State salary required, and give full particulars of experience to 16/509, Office of this Paper.

**A**SSISTANT wanted 3 evenings a week; London experience essential; those in regular work only need apply. Apply 167/4, Office of this Paper.

**A**SSISTANT (lady) for quick Counter trade and Stock. State wages, experience, etc. 166/6, Office of this Paper.

**E**LDERLY qualified Assistant wanted for supervision in a provincial town; permanency; very short hours. Applicants must state salary required, outdoors, age, and give reference. 166/36, Office of this Paper.

**G**OOD Junior Assistant (male) for stock and assist with Dispensing; four kept. Apply, giving full particulars of experience, age, height, and salary required, Mr. Reid, 3 Queen Street, Exeter.

**M**ANAGER required for London; must be keen and tactful, and well up in Toilet and Sundries side. Age not over 40. References must be exemplary. Permanency, and good prospects. Give full particulars of experience, and salary required, to 16/508, Office of this Paper.

**Q**UALIFIED Assistant for high-class Dispensing business; young married man to live on premises; must be good Dispenser; preference given to man with Optical knowledge. Full particulars of experience, age, and salary required to Chas. Lowe & Co., Ltd., Surbiton.

**Q**UALIFIED Assistant (male) for good-class Dispensing business immediately after Christmas; state age, height, experience, references, and salary required. A. E. Coverdale, Pharmaceutical Chemist, Worcester.

**Q**UALIFIED Manager; suburban business; light Retail and a little Dispensing; must be a good Prescriber; permanency to the right man; state salary required. 166/17, Office of this Paper.

**T**HOMPSON & CAPPER, LTD., have a vacancy at one of their Yorkshire Branches for a really smart Assistant who is good at display work and Photography. Apply, with photograph, if possible, Thompson & Capper, Ltd., Manesty Buildings, College Lane, Liverpool.

**W**ANTED, a thoroughly competent unqualified Assistant; must be over 24 years of age. Apply to Mr. Tudor Phillips, 42 Oxford Street, London, W.1.

**Y**OUNG Ladies required, with experience of Retail Pharmacy, for Office Work in London. Write, giving particulars and recent testimonials, to 166/11, Office of this Paper.

### WHOLESALE.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

**L**ONDON AND SOUTH COAST.—Representative wanted to work and extend existing connection and sell Bulk and Packed Goods among Chemists in London, Home Counties and South Coast; remuneration by arrangement. Applications, giving full details as to territory covered, salary required, and when available, in confidence. 16/511, Office of this Paper.

**A**DVERTISEMENT Copy Writer.—London Wholesale Chemists require Assistant Copy Writer in advertising department; Pharmaceutical experience essential. Replies must state age, experience, and salary required. 16/503, Office of this Paper.

### COUNTRY TRAVELLERS.

**R**EAL, live men wanted at once for sale of Drags, etc., to Chemists; liberal commission to men with good connections. State ground covered and particulars, in confidence. P.C.B. 80/5, Office of this Paper.

**J**UNIOR Chemist wanted, about 18 years of age, to assist in Laboratory at London Soap Works; opportunity for youth with knowledge of, and keen on, chemistry; one residing in East or South-East London districts preferred. Write, stating age, capabilities and salary required, to "Beta," 16/510, Office of this Paper.

**L**ABORATORY Hand required, used to manufacture of high-class Toilet preparations. Apply, stating age, past experience and salary required, to Fisher & Co., 4/6, Mawson Hill Road, Highgate.

**S**PONGE Trade.—Reliable Travellers required for London and provinces to represent firm of importers; must have good connections and know trade. State qualifications, terms, etc. "Importers," 16/504, Office of this Paper.

**W**ANTED, four Representatives for the provinces; must have first-class experience and connections for high quality Pharmaceutical preparations. Reply, with fullest particulars, to 16/505, Office of this Paper.

### Returning Photos, &c.

Advertisers in this section who receive portraits and copies of testimonials from applicants, with a stamped addressed envelope for reply, are reminded that the undue retention of these often means a hardship to the sender. All personal documents should be returned as promptly as possible after perusal.

### [Colonial, Indian and Foreign.]

**K**ENYA COLONY.—Qualified Junior Assistant required, with knowledge of Photography; should be unmarried and under 25 years of age; healthy climate; second-class passage paid out 4 years' agreement; salary first year £350, second year £390, third and fourth years £420. Apply, with full particulars of experience and photograph, to P.C.B. 80/6, Office of this Paper.

**S**T. MORITZ (SWITZERLAND).—Qualified English Chemist (male) required for about December 15 to March 1; extra language and Continental experience an advantage; salary 45 francs per month; travelling allowance 250 francs. Full particulars, in first letter, to International Pharmacy.

### SITUATIONS WANTED.

#### [HOME.]

#### RETAIL.

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

**A.A.A.**—**Q**UALIFIED; Manager or Senior; tall; married; excellent all-round experience; temporary or permanent. "Advertiser," 190, Burrage Road, S.E.18.

**A.A.A.**—**Q**UALIFIED Chemist seeks engagement; good London and provincial experience; excellent references. Nethercott, 18 Gloucester Road, Regent's Park, N.W.1.

**A.A.A.**—**Q**UALIFIED, 32, married, abstainer, requires post as Manager or Locum; excellent Prescriber, Dispenser. H. Aplin, 46 Cresswell Road, E. Twickenham.

**A.A.A.**—**U**NQUALIFIED, 28; single; 12 years' experience; competent Dispenser and Confectioner; good window dresser; disengaged; London preferred. Apply to "X. V. Z." 31 North Villas, Camden Square, London, N.W.

**A.A.A.**—**Q**UALIFIED, experienced Manager; excellent references; trustworthy, reliable business man; sober; 42; single; height 5 ft. 8 in. "Veritas," 167/25, Office of this Paper.

**A**CAPABLE, energetic and reliable Dispenser, all-round experience, desires immediate re-engagement; willing deposit £250, view to ultimate Partnership; London preferred, not essential. Watson, 19 Oshorne Terrace, S.W.8.

**A**CHEMIST, 22; 7 years' experience, Dispensing, Confectionery and Photography, disengaged. Parker, 41 Gordon Street, Colne, Lancashire.

**A**PHARMACIST, 34; experienced all round; finish locum December 23; permanency preferred. Cottman, c/o Mr. Arnott, Glyncorrwg, Glam.

**A**QUALIFIED Chemist, 33, at present proprietor of a village pharmacy, but more accustomed to a better class business, is desirous of obtaining a senior position in such early in the New Year; London or Eastern Counties preferably; good Dispensing and Retail experience; West-End apprenticeship; would be prepared to take a financial interest up to about £300 if desired. 165/30, Office of this Paper.

**A**QUALIFIED (Hall) experienced woman wants post, Dispenser, General Assistant; very moderate salary. Dispenser, 108 Lower Richmond Road, Putney, S.W.

**A** STUDENT requires situation evenings and Saturdays; competent and keen. Apply "G. W." 31 Union Road, Clapham.

**A**BTAINER, qualified Manager; tall; reliable; varied experience Photography; 8 years last post. Parkinson, 13 Hartington Road, St. Margaret's, Twickenham.

**A**DVERTISER, young, trustworthy, energetic, wants post with good prospects, inside or out; financial interest considered; Toilet Goods experience. 167/16, Office of this Paper.

**A**PPRENTICESHIP required with Wholesale or Retail London Chemist by youth, aged 16, tall, good education, including 3 years' science course. R. J. Howard, 35 Chesterford Road, Manor Park, E.12.

**A** N experienced lady Dispenser (Hall); 7 years Hospitals and surgeries; locum or permanency. "G. R.", 10 Gilston Road, W.10.

**A** S Dispenser and Book-keeper, Doctor or Institution; highest references; moderate salary. "X.", 165/29, Office of this Paper.

**A** S Improver.—Young lady, having served full apprenticeship, desires post in North; capable Dispenser, well up in photography and Counter work. (Miss) M. Rowland, "Rock illa," Skelton-in-Cleveland.

**A** S Assistant or Manager; qualified; 23; good references; Potteries preferred; personal interview. "M.P.S.", Church Street, Silverdale, Staffs.

**S** SISTANT, 26 (married), tall; used to sole charge; energetic and thoroughly capable in all branches, including Photography; fully conversant with modern business methods; excellent references. 164/10, Office of this Paper.

**S** SISTANT, 43; good Dispenser, Photography all branches, Optical, good Prescriber; active; excellent references; 25 years' experience; please state salary; unqualified. Kearsley, 3 Ringwell Terrace West, Northallerton.

**S** SISTANT in high-class Pharmacy; 32; married; educated Public School; willing to take any post. M.L. 1566, Office of this Paper.

**S** SISTANT or Dispenser, 22, two years' war service, served regular apprenticeship, desires any post for which qualifications are suitable. M.L. 66813, Office of this Paper.

**S** SISTANT or Manager; qualified; West-End experience; speaking French; disengaged. Apply P.C.B. 80/4, Office of this Paper.

**S** SISTANT or Manager; qualified; 27; experienced Counter, Dispensing, Photography; disengaged. "Chemist," 124 Ipton Road, Colne, Lancashire.

**S** SISTANT, 25 (Part I.); disengaged; London and provincial experience; excellent references. Osborne, 18 Gloucester Road, Regent's Park, N.W.1.

**S** SISTANT; unqualified; 27; 6½ years' experience; disengaged Christmas; Birmingham or Midlands preferred. G. B., Wood Cottage, Swindon Road, Cheltenham.

**S** SISTANT; unqualified; reliable Dispenser, Counterman; good references; disengaged; married. Dyett, 67 Battersea e, Clapham Common, S.W.

**S** SISTANT, 25; high-class Counter and Dispensing experience; disengaged. T. Roberts, 22 Wellfield Road, Cardiff.

**S** SISTANT, 30; disengaged; West-End Dispensing, Retail and Photographic experience; excellent references. Chant, St. Stephen's Square, Bayswater.

**S** SISTANT, 29; unqualified; 12 years' experience, Dispensing, Photography, Window-dressing and Counter; capable taking charge; disengaged. 166/2, Office of this Paper.

**S** SISTANT, 23, unqualified, all-round experience, desires post; London preferred. Williams, c/o Day, Bells Hill, Stoke-on-Trent, Bucks.

**S** SISTANT, 25, tall, qualified single, requires position; interview London or Home Counties; moderate salary; at 3 months' London experience. 167/19, Office of this Paper.

**R** ANCH, Senior; Light Wholesale; 47; unregistered; 30 years' record experience; highest credentials; accept £56s. "Mac" —, 8 Digbeth, Birmingham.

**A**PABLE, energetic; good address; thoroughly experienced many branches, Photography, N.H.I., Hospital, Agricultural, Shipping, etc. "Chemicus," 79 Cecil Street, Manchester, S.

**H** EMIST offers part-time services in return for living accommodation; easy access Victoria. Barritt, 459 Harrow Rd, W.

**H** EMIST, married, very active, business builder, salesmanship and window dressing, specialities, wide experience; controller, and organiser, open for engagement; good-class references. "Manager," 167/7, Office of this Paper.

**H** EMIST'S Assistant; Retail or Wholesale; 25; 3 years' war service; thorough knowledge of all branches; will take post. M.L. 15227, Office of this Paper.

**C** OMpetent, unqualified Assistant, 22; single; 6 years' experience; Dispensing, Counter, Photography, and Window-dressing. Glynne, 27 Winllan Avenue, Llandudno.

**C** OMpetent Assistant; unqualified; tall; 38; gentlemanly; Counter, Dispensing, Window-dresser, Photo, etc.; permanency; London only. "Statim," 23 Doughty Street, Holborn, W.C.

**C** OMpetent, unqualified Assistant, 28; 12 years' experience; keen business ability; accurate Dispenser and first-class Salesman; excellent references; disengaged. "E. H.", c/o 206 Maryvale Road, Bournville, Birmingham.

**C** OMpetent, married, unqualified; keen business ability; accurate dispenser and first-class salesman, expert window dresser; vacant January. 167/24, Office of this Paper.

**C** UMBERLAND.—Lady, Hall, 6 years' experience, accurate dispenser, knowledge of book-keeping, desires post; chemist, doctor, or institution. 165/40, Office of this Paper.

**D** EMONSTRATOR, 26, of Dispensing and Chemistry, having sound Scottish pharmaceutical training, first-class London hospital experience, and London retail, seeks employment in any capacity in any district; excellent references from high authorities. "M.P.S.", 92 The Grove, Camberwell, S.E.5.

**D** ISPENSER or Hospital Attendant to Medical Officer; 42; married; has been sick berth officer in Navy; also Dispenser in charge of stores, R.N. hospital; holds Nursing Certificate; X-ray Operator. M.L. 4398/22, Office of this Paper.

**D** ISPENSER (lady), Hall, knowledge Book-keeping, requires post, Doctor, Chemist or Institution. Write "M. S. S.", Tiee Tara, Egham, Surrey.

**D** ISPENSER.—Qualified young lady, fluent in French, anxious to gain experience; institution preferred; London or near. "M. S.", c/o 25 St. Bride Street, E.C.4.

**D** ISPENSER, Salesman, Photographics, and Window-dresser, highest references, desires position in quick retail, or with chemist who requires a first-class pushful, tactful, and thorough business assistant; London or seaside. "Mediline," 166/32, Office of this Paper.

**D** ISENGAGED.—Junior, 18, tall; Dispensing, Counter, and Photography; excellent references; Liverpool district. White, Moss Bank, St. Helens, Lancs.

**E**X-OFFICER, 50, married, 6 years' war service, desires post as Dispenser in an Institution; Dispenser, R.A.M.C., qualified by examination (1903); willing to take any post. M.L. 204/22, Office of this Paper.

**E**XPERIENCED Assistant; West-End; A1 Salesman, Photography, Prescribing, Dispensing, Window Displays; tall; age 38. "Scott," 33 Archer Street, W.11.

**J**UNIOR Assistant, 20, desires post; good experience, Dispensing, Counter, Photography. Davies, School House, Rhyclafdy, Pwllheli.

**J**UNIOR Assistant seeks situation, with good Dispensing experience. Johns, c/o Mr. Rowe, Chemist, Narberth, Pembs.

**L** ADY Dispenser, Book-keeper, Hall, 7 years' experience, excellent testimonials, desires post with Doctor or Hospital; part-time considered. 164/17, Office of this Paper.

**L** ADY Dispenser (Hall) desires post anywhere; one year's experience with Doctors; Locum experience in Hospital. 65 Mayfair Avenue, Ilford.

**L** ADY Dispenser (Hall) desires post with Doctor or Institution. H. Keen, 29 Knowle Road, Bristol.

**L** ADY Dispenser (Hall) requires post, Doctor or Hospital; 2 years' experience. Allanson, 3 Cavan Road, Redbourn, Herts.

**L** OCUM, qualified (elderly). Address, "J. W. W.", 90 Walliscote Road, Weston-super-Mare.

**L** OCUM or otherwise; qualified; good references and experience; moderate terms. "W. S.", 163 Eswyn Road, Tooting, S.W.17.

**L** OCUM.—Experienced qualified Chemist, accustomed management, offers services, £5 per week, and pays own expenses. "Immediate," 166/22 Office of this Paper.

**M** ANAGER or Assistant; ex-officer; 23; two years' war service; qualified; served apprenticeship; willing to take any post. M.L. 1445/22, Office of this Paper.

**M** ANAGER, Locum or part-time; qualified; expert Prescriber and thorough knowledge of the business; disengaged; highest references. Williams, 17 Headfield Road, Saville Town, Dewsbury.

**M** ANAGER, qualified, reliable, first-class experience, excellent references; permanency; Midlands. Apply 167/28, Office of this Paper.

**M**ODERATE salary; unqualified; excellent all-round experience; splendid references; good Window-dresser. Write 166/10, Office of this Paper.

**M**R. T. H. MORLEY, Chemist, Stockport, can thoroughly recommend a qualified Assistant who is desirous of improving his position; experienced; good Dispenser and Counterman.

**N**AUTH. SMITH & CO., Cheltenham, recommend competent Assistant; 40 years; married; town and country experience; good Dispenser, Counterman; seeks permanency. "Eral," 4 Hill View Villa, Hewlet Road, Cheltenham.

**N**OTTINGHAM, or near.—Whole or part-time; good prescriber and experience; excellent local references. "Phenazonum," 166/31, Office of this Paper.

**P**ART-TIME Assistant; good references; splendid experience; dispensing, counter; 5 ft. 11 in.; age 23; highest character present employer. "Scot," 166/37, Office of this Paper.

**Q**UALIFIED.—Lady; excellent Dispensing and Retail experience; good references; London preferred. "M.P.S." 50 Albion Road, Swiss Cottage, N.W.6.

**Q**UALIFIED; experienced; town, country; knowledge of Optics; 32; disengaged. Cornea, 18 Margaret Street, Abercynon, Glam.

**Q**UALIFIED, young, energetic, 4 years' Harrogate experience, desires post; part-time or permanent. "Statim," 62 Fentiman Road, S.W.8.

**Q**UALIFIED, 33; Manager or Assistant; experienced, energetic, capable, and reliable; disengaged. Johnstone, Higher Bore Street, Bodmin.

**Q**UALIFIED male Pharmacist, experienced in N.H.I. and institution work, wants morning and afternoon job; London district. 167/2, Office of this Paper.

**Q**UALIFIED Chemist, aged 30 years, married, Manager of a large retail dispensing establishment, good all-round experience, excellent references, abstainer, desires similar position, but suitable living accommodation absolutely essential; Midlands preferred. 167/15, Office of this Paper.

**R.A.M.C.** EX-WARRANT Officer, 38, married, desires post as Dispenser; qualified Army Dispenser. M.L. 4123/22, Office of this Paper.

**S.O.S.** —DOES no London Chemist require services experienced middle-aged Pharmacist? Moderate salary; married; steady, willing worker; excellent references; abstainer; capable Dispenser, Prescriber; employment urgently needed. "Nil Desperandum," 166/5, Office of this Paper.

**S**ENIOR, Manager or Dispenser, 45, unqualified, West-End experience, really capable and reliable man, seeks re-engagement; used to control; disengaged shortly. "Aspirin," 166/38, Office of this Paper.

**T**OWN or Country.—Expert Dispenser and Counterman; permanent or otherwise; unqualified; disengaged. "H." 39 St. Thomas Road, N.4.

**U**NREGISTERED; single; disengaged; tall; 20 years' first-class experience; Locum or permanent. Clutterbuck, 209 Whittington Road, Bowes Park, N.22.

**W**ALTHAMSTOW (or near).—Lady, 30, 10 years' really good experience, excellent references, good saleswoman, desires whole or part-time situation; at liberty after Xmas. "Radix," 169 Chingford Road, Walthamstow, E.17.

**W**OMAN Pharmacist, Square trained, experienced Hospital and Retail, desires permanency or Locum. Trick, "The Cottage," Newton, Mumbles, Glam.

**£3** WEEKLY.—Locum for Christmas or permanency; Hall; 58; abstainer. "Vera," 28 Princess Street, Hurst, Manchester. Will advertiser kindly send name to this office.

## WHOLESALE.

**A**S Representative, Chemist; ground, Wales and W. of England; disengaged; salary, expenses, and commission. Slinn, Tirionfa, Buttersett Road, Rhyl, N.W.

**D**ISPENSING or Wholesale; 33; married; 14 years' Dispensing experience; competent to take charge of accounts or buy drugs, etc. M.L. 3958/22, Office of this Paper.

**D**RUG Department or Wholesale House.—Capable man; disengaged; 20 years' departmental stores experience; thorough knowledge Patents, Surgical, Sundries, Counter, Orders, Stock-keeping; used to control; town or country. R. Tyler, 84 Montholme Road, Wandsworth Common, S.W.

**E**XPERIENCED Traveller, established connection am Chemists, Stores, Hospitals, Institutions, etc., in South West of England, seeks engagement with Proprietary or Wholesale House; proof of efficiency in salesmanship guaranteed. P.C.B. 79/25, Office of this Paper.

**E**XPORT Manager, able to take full control, shortly at liberty fully experienced all departments, Empire markets; f class reference. 165/32, Office of this Paper.

**G**ENTLEMAN, 45, tall, long Retail experience, also Wh sale and Manufacturing, capable man, good organiser, t to control, thorough knowledge of Drug trade, seeks posit with good house. "O. K." 166/380, Office of this Paper.

**L**ABORATORY Assistant, 26; knowledge of Arabic; experi in Wholesale Laboratory, lozenge making, etc.; willing take any post in Wholesale or Retail. M.L. 12223, Office this Paper.

**Q**UALIFIED, pre-war; abstainer; experienced Retail, Wh sale (Manager, wets and drys); aged 35; well educated good organiser; disengaged. "Progress," 165/20, Office of Paper.

**R**ESEARCH or Laboratory; 22; educated; Public Sch A.R.C.S., B.Sc. (first-class Hons.); fluent French German, some Russian; experience as Assistant Research Laboratories and Gas Company. M.L. 53201, Office of this Paper.

**T**RAVELLER desires engagement; Salesman, with pr record and wide experience of road; can influence busin energetic, earnest worker and reliable man; highest referenc qualified Chemist; familiar all branches Drug and allied tra "S. M." Park House, High Street, Colchester.

**Y**OUNG gentleman, unqualified, requires progressive post v Manufacturing Chemists; 5 years' experience with Dr and Retail trade; able to help with original ideas in advert by sketching up showcards, labels, labels, press advts, etc.; arrange interview. Write 161/11, Office of this Paper. V advertiser kindly send name to this office.

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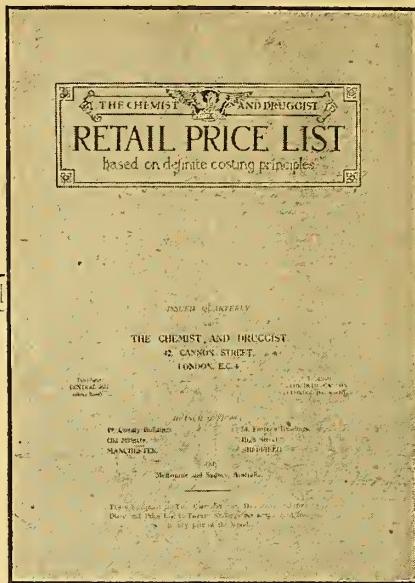
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